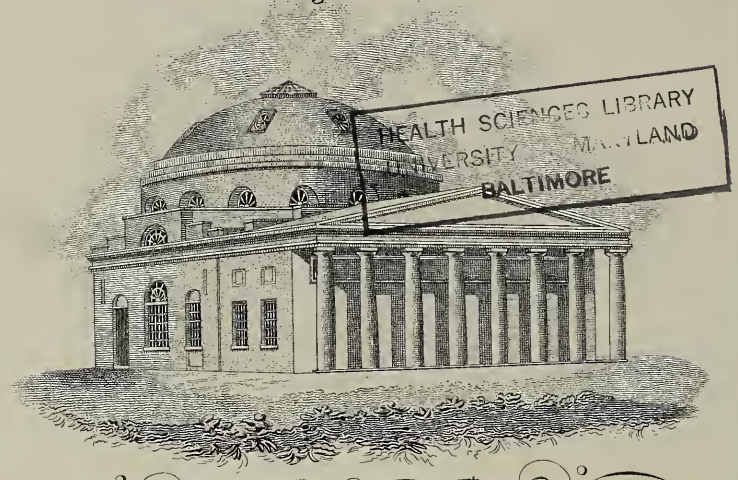
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The Journal

of the

Michigan State Medical Society

Published under the Direction
of The Council

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G. W. Slagle, M.D.
G. B. Saltonstall, M.D.

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VOLUME 50
1951

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Diefenbach, W. C., and Meneely, J. K., Jr.: Yale J. Biol. & Med. 21:421, 1949.

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MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

January 31	Mt. Carmel Mercy Hospital Clinic Day	Detroit
February 8	Jackson County Medical Society's Clinic Day	Jackson
March 14-15-16	MICHIGAN POSTGRADUATE CLINICAL INSTITUTE	Detroit
March 17	SECOND ANNUAL MICHIGAN HEART DAY	Detroit
Spring	MSMS Postgraduate Extramural Courses	State-wide
April 3	Calhoun County Medical Society's Clinic Day	Battle Creek
April 4	SECOND MICHIGAN INDUSTRIAL HEALTH DAY	Detroit
April 18	Genesee County Medical Society's Cancer Day	Flint
April	Highland Park Physicians Club Clinic	Highland Park
May 3	Ingham County Medical Society's Clinic Day	Lansing
May 9	Wayne University College of Medicine Alumni Association Clinic Day and Reunion	Detroit
May 22	Bon Secours Hospital Clinic Day	Grosse Pointe
June	St. Clair County Medical Society's Clinic Day	St. Clair
June	Upper Peninsula Medical Society Annual Meeting	
July 26-27	Annual Coller-Penberthy Medical-Surgical Conference (sponsored by Grand Traverse - Leelanau - Benzie County Medical Society)	Traverse City
Sept. 26-27-28	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION	Grand Rapids
October 13	Third Michigan Cancer Conference	East Lansing
Autumn	MSMS Postgraduate Extramural Courses	State-wide
Oct. or Nov.	American Academy of General Practice of Wayne County	Detroit
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health)	Flint

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

FEATURED SUBJECTS FOR 1951

THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY will be dedicated in 1951 to the following topics:

January:	*Michigan Postgraduate Clinical Institute* (March 14-16, in Detroit)
February:	*Easter Seals*
March:	*Atomic Number*—with *Cancer Control* tied in.
April:	*Public Relations—and Silver Anniversary of Woman's Auxiliary to MSMS*
May:	*Michigan's Foremost Family Physician*—and *Salute to the AMA*
June:	*Michigan Medical Service*
July:	*Roster Number*
August:	*Annual Session Number* (September 26-28. in Grand Rapids)
September:	*Arthritis and Rheumatism*
October:	*Michigan Foundation for Medical and Health Education, Inc.*
November:	*Michigan Health Council*
December:	*Heart Disease and Rheumatic Fever Control*

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of November 8, 1950

- Monthly financial reports, including detailed breakdown of the Public Education Account and of the Public Education Reserve Account, were presented, studied in detail, and approved. Bills payable for the current month were presented, approved, and payment was authorized.
- Color insert in JMSMS. The Editor was authorized to publish a color insert in four issues of JMSMS in 1951, with all copy to be supervised by the Editor; two pages are to be devoted to the work of the MSMS Public Relations Department and two pages to a progress report of Michigan Medical Service. Times of insertion are left to the discretion of the Editor.
- The fiftieth year of publishing THE JOURNAL of the Michigan State Medical Society. The recommendation of Editor Haughey that some special notation be placed on the covers of all 1951 Numbers, to indicate the Golden Anniversary of THE JOURNAL, was approved.
- The President's monthly report was given, including the appointment of the following personnel as the Committee of Seven to Study Basic

(Continued on Page 14)

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1. Nesbit, R. M., and Glickman, S. I.: J. Michigan State M. Soc. *46*:664, 1947.
2. Dodson, A. I.: West Virginia M.J. *45*:1, 1949.
3. Seneca, H.; Henderson, E., and Harvey, M.: J. Urol. *61*:1105, 1949.

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HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

(Continued from Page 12)

Science Law, following instructions of the House of Delegates: J. Duane Miller, M.D., Grand Rapids, Chairman; W. B. Harm, M.D., Detroit; J. Joseph Herbert, LL.B., Manistique; J. E. Livesay, M.D., Flint; J. H. Schlemer, M.D., Detroit; E. D. Spalding, M.D., Detroit, and D. B. Wiley, M.D., Utica.

The President reported on action taken by the American College of Surgeons re its hospital standardization program which it will continue to maintain with perhaps advisory representation from the American Medical Association, the American College of Physicians, and the American Hospital Association. Details are now being discussed.

- Official MSMS representatives to attend annual meeting of the Michigan Public Health Association and of the Michigan Health Officers Association in Grand Rapids on November 29, 30-December 1 were selected.
- President-Elect O. O. Beck, M.D., suggested a more fitting name and more exact definition of the scope of work handled by the State and County Mediation Committees; this was referred to the Legal Counsel for opinion.
- Associate Fellowship in the A.M.A.: The name of Wilfrid Haughey, M.D., Battle Creek, was nominated for this honor.
- Fifth Michigan Postgraduate Clinical Institute, Detroit, March 14-15-16, 1951: The Press Relations Committee was appointed, as follows: R. A. Johnson, M.D., Detroit, Chairman; William Bromme, M.D., Detroit; H. F. Dibble, M.D., Detroit; K. P. Hodges, M.D., Lansing; Arch Walls, M.D., Detroit, and J. A. Witter, M.D., Detroit.
- The Chairman of the MSMS Industrial Health Committee (M. R. Burnell, M.D., Detroit) was authorized to attend the Eleventh Annual Congress on Industrial Health (sponsored by the AMA) in Atlanta, Ga., February 26-27, 1951.
- Lunette I. Powers, M.D., Muskegon, was selected as MSMS nominee for the AMA General Practice Award, and also was chosen as Michigan's Foremost Family Physician for the year 1950.
- The tentative program for the 1951 Annual County Secretaries-Public Relations Conference, scheduled for Detroit, January 21, 1951, was presented and approved.
- H. W. Porter, M.D., Jackson, Chairman of the MSMS Cancer Control Committee, presented a verbal report on recent activities and the aims of this Committee, to which he recently appointed 17 sub-committees.
- The Public Relations Counsel's monthly report included progress on the Good Citizenship Campaign; the Michigan Rural Health Survey; Sex Deviates Legislation; MSMS movies "To Your Health" shown in 210 theaters and "Lucky Junior" in 241 theaters; broadcasts by MSMS, every three months, similar to that presented on November 1 by Secretary L. Fernald Foster, M.D., were authorized for 1951; co-operation with the Medical Arts Pharmacy of Detroit in its Sunday afternoon television program over WXYZ-TV, was authorized; an MSMS exhibit at the 1951 Michigan State Fair was authorized; report on the Michigan Rural Health Conference of October 20-21 was presented; an inexpensive motion picture, stressing the MSMS campaign to secure more doctors of medicine for public service, was authorized for 1951.
- Michigan Health Commissioner A. E. Heustis, M.D., was present to discuss: (a) new birth certificates and wording thereof; (b) reporting of communicable diseases; (c) blood typing program in Jackson, Michigan; and (d) child health and maternal health appropriations (as a result of H.R. 6000).
- The following Committee reports were given consideration: (a) Cancer Control Committee, meeting of October 18; (b) Rheumatic Fever Control Committee, meeting of October 25; (c) Advisory Committee to National Foundation for Infantile Paralysis, meeting of October 26; (d) Committee on Atomic and Allied Procedures, meeting of November 3, and (e) Maternal Health Committee, meeting of November 7.

HOSPITAL STANDARDIZATION PROGRAM OF THE AMERICAN COLLEGE OF SURGEONS

So much misinformation about the Hospital Standardization Program of the American College of Surgeons has been circulated, both in the medical press and by word of mouth, that the

(Continued on Page 16)

point of departure

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feeding cases...



Dryco is not only the point of departure for almost every type of infant formula—it is also in itself a valuable food for special cases. Dryco assures ample protein intake while its low fat ratio and moderate carbohydrate content minimize digestive disturbances.

The applicability of the Dryco formula is strikingly seen in an observation by Pitt: "The majority of cases of infant diarrhea, seen in private practice, are of such nature that changing the formula to one of low fat and low carbohydrate is all that is necessary to correct the condition..." Dryco is specifically recommended for use in these cases.*

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**Pitt, C.K.: The Art and Science of Artificial Infant Feeding, J.M. Asso. Ala. 19:101 (Oct.) 1949.*

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HOSPITAL STANDARDIZATION

(Continued from Page 14)

facts of the situation should be presented to the profession.

It has been no secret that financing this program has given the Regents concern for some time. The increasing number of hospitals requesting approval and the decreasing value of the dollar have created a serious problem. However, at no time have the Regents decided to abandon the program, and never have they made any overtures to any other organization regarding its disposal.

In July of this year, the Regents received a proposal from the American Hospital Association that the latter assume and finance the Hospital Standardization Program. A Committee of the College was appointed to meet with representatives of the A.H.A. for the sole purpose of phrasing this proposal in specific terms. It cannot be emphasized too strongly that the function of, and instructions to, this committee were limited to this purpose.

The Regents considered this proposal *for the first time* on August 4, 1950. It was not accepted by the College; and the Regents immediately acted to arrange for conferences with representatives of the A.M.A., the American College of Physicians, and the A.H.A. Statements that the Regents first agreed to the proposal and later reversed this decision are wholly erroneous.

Three such conferences have been held. Divergence of points of view has diminished but no agreement has yet been reached. Hope that ultimately a satisfactory agreement can be reached has increased with each conference.

The Regents have every intention of continuing the Hospital Standardization Program, upon an expanded scale and even with deficit financing, until a solution can be found which is agreeable to the majority of the profession and which is, above all, in the best interests of the public.—American College of Surgeons, November 27, 1950.

MSMS CANCER COMMITTEE OFFICE MOVED TO JACKSON

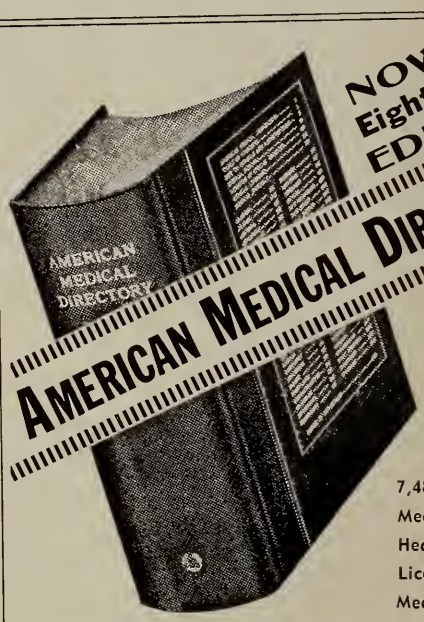
The Cancer Control Committee Office was moved from Ann Arbor to 428 Wildwood Ave., Jackson, Michigan, on November 10. The telephone number is Jackson 20652. Both the Committee Chairman, Horace Wray Porter, M.D., and the Secretary, Frank L. Rector, M.D., may be reached at the new address in Jackson.

BY-LAWS AMENDED RE LIFE MEMBERSHIP

The House of Delegates of the Michigan State Medical Society, at its Detroit Annual Session of September 18-19, 1950, amended the MSMS By-Laws, Chapter 5, Section 7 re Life Membership, by deleting the word "consecutive" between the words "twenty-five" and "years."

This Section now reads:

"Chapter 5, Section 7, Life Member—A Doctor of Medicine who has attained the age of seventy years and maintained an active membership in good standing for twenty-five years in this State Society may, upon his application, and recommendation of his component County Society, be transferred to the Life Members' Roster. He shall have the right to vote and hold office but shall pay no dues to the State Society. Requests for such transfer shall be accompanied by certification by The Secretary of The State Society as to years of membership in good standing. He shall be entitled to receive THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY at such rates as The Council may determine."



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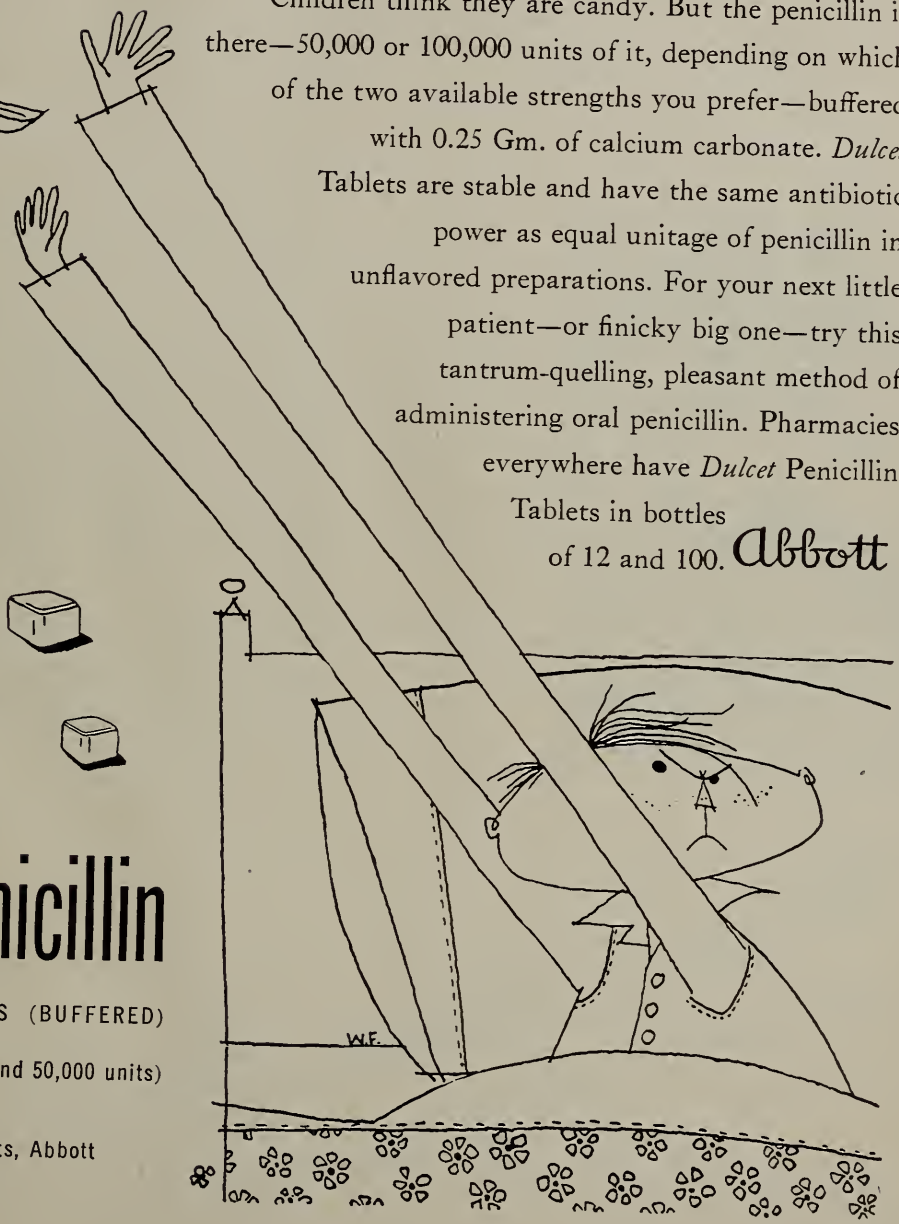
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Cancer Comment

AMERICAN CANCER SOCIETY PROFESSIONAL EDUCATION PROGRAM

The Professional Education program of the American Cancer Society has been expanded during the past year to provide some form of educational service to practically all physicians in the United States.

In the field of scientific cancer literature the Journal "CANCER" has been published bi-monthly for the past three years, and is devoted largely to clinical research. Each issue contains a number of original articles in the cancer field, also a section of abstracts of world cancer literature.

To provide a more usable educational medium, a new journal "CA—A Bulletin of Cancer Progress" has been developed. This publication will appear bi-monthly and is of pocket size. This illustrated bulletin is written for the general practitioner and contains one or two original articles on cancer problems frequently encountered in the physician's office practice. A clinico-pathological conference report is included in each issue, as are abstracts of current cancer literature. This bulletin is intended for easy reading and wide distribution.

Another publication for the medical profession is a series of monographs sent to 173,000 physicians in the United States and Canada. Each issue deals quite thoroughly with one subject. The five issues so far distributed to physicians deal with genito-urinary, lung, breast, head and neck, and cancer in general. A special issue on mouth cancer has been distributed to dentists.

A bibliography on "Cancer Current Literature" has been published for the past three years. This is a monthly compilation of world cancer literature classified according to the system of the Quarterly Cumulative Index Medicus including cross references and author index. This is the only available up-to-date index of medical and scientific literature in the cancer field. It will be sent without charge by the American Cancer Society, 47 Beaver Street, New York 4, N. Y., to any physician asking for it.

The Society also prepares topical bibliographies for physicians and has a large reprint collection available for lending purposes. A collection of more than 400 lantern slides, both black and white and kodachrome, are also available for loan. The Society's library contains bound copies of all important books in the cancer field.

Exhibits on various aspects of cancer suitable for professional meetings are also available.

Two new motion picture films on breast cancer have been developed recently. One deals with breast cancer and its diagnosis and is intended for professional use. The other, entitled "Self Examination of the Breast" is intended for lay showing and teaches women to examine their own breasts at regular intervals. A film on cancer for nurses has recently been made available.

The Cancer Society annually awards clinical fellowships to approximately 70 physicians. These fellowships are served in 36 institutions and cover surgery, radiology, pathology, gynecology, urology, internal medicine, and general practice. Eleven fellowships in exfoliative cytology have also been awarded.

In addition to the professional services available directly from the Society's headquarters, it supports the research program of the Committee on Growth of the National Research Council. Some 250 research projects entailing the annual expenditure of more than three million dollars are currently in operation. These projects deal with the physical, chemical, biological, and other scientific aspects of growth and are focussed on the general problem of an understanding of the intimate composition and functioning of the living cell.

The facilities and services described above are freely available to all Michigan physicians through the two state divisions of the American Cancer Society or the Cancer Control Committee of the Michigan State Medical Society. With other sources of professional education through state and national medical journals and through articles in specialty journals and other scientific literature, all physicians have access to an abundance of cancer education literature which, if carefully studied, will enable them to render an increasingly better service to their cancer patients.

One of the current objectives of the Cancer Control Committee is to obtain more instruction of undergraduate medical students in cancer detection examination methods. In time, this should provide a service to meet all the public's needs.

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Admission Policy at University of Michigan

For some time, The Council of the Michigan State Medical Society has felt the need for disseminating information to MSMS members relative to the admission policy of the University of Michigan Hospital.

The University Hospital authorities, at the Council's request, have developed a very clear statement of procedure for the admission of in-patients and out-patients to the U. of M. Hospital. These concise instructions follow:

Hospitalization

Advance reservation for hospitalization may be made for patients you feel require it. Ambulatory patients will be seen first in the Out-Patient Clinic for confirmation.

Patients will be asked to make an advance deposit, the amount based on the estimated length of stay.

Since the University Hospital receives no appropriations from tax funds for its operations and therefore is entirely self-supporting, it is absolutely necessary that patients make financial arrangements for payment of clinic fees or cost of hospitalization before coming to the hospital.

Patients unable to pay should be referred for financial assistance to your local Social Welfare Department.

Out-Patient Clinics

Hours.—8:00 A.M. to 5:00 P.M., except Saturdays, Sundays, and New Year's, Memorial, Independence, and Labor Day, Thanksgiving and Christmas holidays.

Clinics.—

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Blood Diseases
Cardiology
Dermatology
Endocrinology & Metabolism
General Medicine
*General Surgery
Gynecology
Neurology
Neuropsychiatry
*Neurosurgery
Obstetrics
Ophthalmology
*Oral Surgery
*Orthopedics
Otorhinolaryngology
Pediatrics and Communicable Diseases
Thoracic Surgery
Tuberculosis
*Urology

Appointments.—All patients require referral by a physician and except for clinics marked with an asterisk all require prior appointment. Referral by letter is preferred, but appointments can be made by a telephone call to the Appointment Clerk. Patients should arrive one hour before appointment to complete registration.

Fees.—A flat fee, the amount of which is dependent on the patient's financial status, is payable on registration. This fee includes a 70 mm. chest photofluorogram, a Kahn test, a hemoglobin determination, and all clinic visits for a period of fifteen days. It does not include other laboratory or x-ray examinations or minor surgical procedures.

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Pain is a late symptom of cancer of the rectum and usually does not occur until the lesion infiltrates adjacent organs, becomes obstructive, or is situated so low in the bowel as to involve the anal canal and lie within the grasp of the sphincter muscle.

*No prior appointment required.

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Harding, F. E.: West. J. Surg. Obst. & Gynec. 52:31 (Jan.) 1944

"All patients (53) described a sense of well-being" following "Premarin" therapy for menopausal symptoms.

Neustaedter, T.: Am. J. Obst. & Gynec. 46:530 (Oct.) 1943.

"It ('Premarin') gives to the patient a feeling of well-being."

Glass, S. J., and Rosenblum, G.: J. Clin. Endocrinol. 3:95 (Feb.) 1943

"General tonic effects were noteworthy and the greatest percentage of patients who expressed clear-cut preferences for any drug designated 'Premarin.'"

Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949.

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AMA Aid to Medical Schools

Responding to the challenge of President Elmer L. Henderson, M.D., of Louisville, Kentucky, that the medical profession take the initiative in raising private financing for hard-pressed medical schools, rather than seeking federal subsidies for medical education, the American Medical Association, on December 6, 1950, appropriated a half million dollars as the nucleus of a fund to be raised for the aid of medical schools throughout the Nation.

The half million dollar contribution was voted unanimously by the AMA Board of Trustees and was announced by its chairman, Dr. Louis H. Bauer of Hempstead, New York, at a meeting of the Association's House of Delegates.

Dr. Bauer's statement follows:

"The Board of Trustees of the American Medical Association is pleased to announce to the House of Delegates that it has appropriated a half million dollars out of its National Educational Fund, which was raised to defend medical freedom, for the aid and support of medical schools which are in need of additional financing.

"This fund will be given to the medical schools for their unrestricted use in their basic training of future physicians.

"This appropriation to aid the medical schools has been made possible by the widespread public co-operation which the profession has received from the American people in its campaign against Compulsory Health Insurance. The fight against socialized medicine must go on until this issue has been clearly and finally resolved, but the pressure for regimentation of the medical profession has greatly lessened, due to the magnificent public support which we have received.

"The Board of Trustees, therefore, feels that it is keeping faith with the American people, who have given medicine such a splendid vote of confidence, when it contributes this amount to the medical schools of the Nation.

"There is growing public awareness that federal subsidy has come to be a burden, not a bounty, for it is bringing intolerable increases in taxation, and is dangerously increasing federal controls over our institutions and the lives of our people.

"American medicine feels very strongly that it should not seek federal aid for medical schools, until all other means of financing have been exhausted. The Board of Trustees announced its belief that funds for this purpose could be obtained from private sources—and as practical evidence of our sincerity of purpose, this appropriation has been made as the nucleus of a fund which we hope will be greatly augmented by contributions from many other sources.

"The Board hopes that this action will become a stimulus to other professions, industries, businesses, labor groups and private donors to contribute to this very important cause of protecting and advancing the interests of medical education and the public health.

"The American Medical Association urges all its members to contribute individually to this cause, and we hope that doctors will take the lead in securing contributions from other sources.

"Furthermore, the American Medical Association invites attention to the fact that it has been spending about a quarter of a million dollars a year for many years past to advance medical education through its Council on Medical Education and Hospitals and other departments. This appropriation, voted today, for an entirely new purpose, is in addition to nearly $285,000 already budgeted for this work during 1951.

"The Nation's medical schools are of the greatest importance to every American citizen and the AMA has had the advancement of their standards as one of its main objectives for over 100 years. The Board of Trustees feels that if all other organizations and individuals will render support of this worthy cause in accordance with their financial ability that not only will the financial security of medical schools be assured, but that their freedom will be protected."

THE CARPENTER LOOKS AT SOCIALIZED MEDICINE

If the day ever comes to America when Uncle Sam usurps the power to dicate to doctors under a health plan, it will be a sad day for carpenters. Adequate housing is still an unsolved problem in this country, especially for the poor. If it is logical to nationalize the medical profession to get more medical service for the poor, it is equally logical to nationalize the home construction industry to get roofs over the heads of the lower income groups.

I do not know much about doctors, but I know quite a bit about carpenters. They are an independent lot. They want to work where and how they please. The first bureaucrat who told a carpenter he had to work in Little Rock when he wanted to work in Lancaster would be gumming his food for lack of teeth. Carpenters want to be free agents; free to work where they want to; free to negotiate the terms of their wages and working conditions; yes, even free to leave the industry and try their luck at something else if the spirit moves them.

They will retain these freedoms only so long as other groups retain theirs. Socialism is like a wolf with a tapeworm; once it starts gnawing, it never can stop. Socialized medicine would only be the first bite out of our free enterprise system; it would not be many years before the carpenters would be feeling the teeth of socialization on the seats of their overalls. Any way you look at it, socialized medicine is no bargain and the carpenters want none of it.—William L. Hutchison, General President Brotherhood of Carpenters and Joiners, Vice President A.F. of L., Cleveland, Dec. 6, 1950.

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You'll be particularly interested in our large showrooms which display the finest examining room and operating room equipment in actual office layouts . . .

. . . and the very latest equipment for compounding pharmaceutical preparations that features our greatly enlarged laboratories.

The ample parking facilities will make it most convenient for you to visit us, and you will enjoy the same expert attention to your needs that have characterized J. F. Hartz Company service to the medical profession for over 50 years.

The J. F. Hartz Company will continue to provide the Medical profession and its patients the services of a complete prescription pharmacy and truss fitting department at its old location . . . 1529 Broadway, Detroit.

The J. F. Hartz Company • 780 W. 8 Mile Road • Ferndale 20, Mich.

Editorial Comment

THE FAMILY DOCTOR

It is 3 a.m. Your son is tossing feverishly on his bed. You have tried everything you know, but nothing seems to help. The youngster is wheezing, and darned sick. Your nerves are jumping. Lord, if you could only do something to help. Your own inadequacy taunts you. You sit on the edge of the bed, and your heart is sick when the youngster moans:

"Daddy, it hurts so."

Then the doorbell rings. It's the sweetest sound you ever heard. It's the family doctor. It's 3 a.m., but here he is, looking calm and confident and fresh as a daisy. Fresh as a daisy and as patient as a saint.

The awful weight falls from your shoulders. The doctor is here, and he knows what to do. He goes about it, while you stand back in awe. He does what needs to be done, and within an hour things are looking an awful lot better. And you thank God for the family doctor as thousands have thanked Him before you, and as thousands will thank Him in years to come.

The position of the family doctor is unique. He is a physician, to be sure, and frequently a surgeon as well. But he is also a friend, a counselor, a psychiatrist, sometimes almost a minister. He works himself to death, but he manages, somehow, to keep going.

Medicine today is highly specialized. No man can know everything there is to know about every subject. The family doctor does not pretend he is omnipotent. But he knows the specialists who do know about every unusual condition, and if he feels unqualified to handle a case he will refer it to the proper specialist.

Meanwhile he goes about taking care of most of life's ailments, bringing babies into the world, taking care of them when they are sick, living a rich and full and abundant life and making the world a happier and a brighter place in which to live.

The title "Family Doctor of the Year" has been bestowed on Dean Sherwood Luce, M.D., seventy-four, of Canton, Massachusetts, by the American Medical Association, meeting here. Dr. Luce is to be congratulated. Yet, we feel that he would be the first to consider that the honor was deserved in equal measure by every family doctor in America.

If it can be said of any man that his name is blessed, it can be said of the family doctor who shows up when a fellow is in real trouble, and who picks up the load at 3 a.m., and carries it.—Editorial, *The Plain Dealer,* Cleveland, Ohio. Dec. 6, 1950.

PROFESSION IN REVOLT

In London, twenty-six doctors have mounted guard over a hospital, taking turns on watch through day and night to keep the government from seizing their institution.

The doctors maintain that the area where it stands needs a general hospital, which is what they have. The government wants to convert it to purely maternity purposes, which the defenders contend is not nearly so necessary as the kind of place now operating.

To get the issue in perspective, try to name somebody in the County Building whom you would trust with your personal medical requirements and judgments in preference to a group of physicians.

We doubt that you can, or would try to. Asking you to do so is also asking you to subscribe to the practice of socialized medicine.

Of course, if you want scocialized medicine, and believe in it as a theory, perhaps you would be willing to oblige with the name of the County Supervisor or City Councilman to whom you go when ill instead of to a doctor.—Editorial, *Detroit Free Press,* December 9, 1950.

SLANDER

Dr. L. F. Foster, secretary of the State Medical Society, called a spade a spade and a liar a liar in a powerful speech Wednesday night over a Detroit radio station.

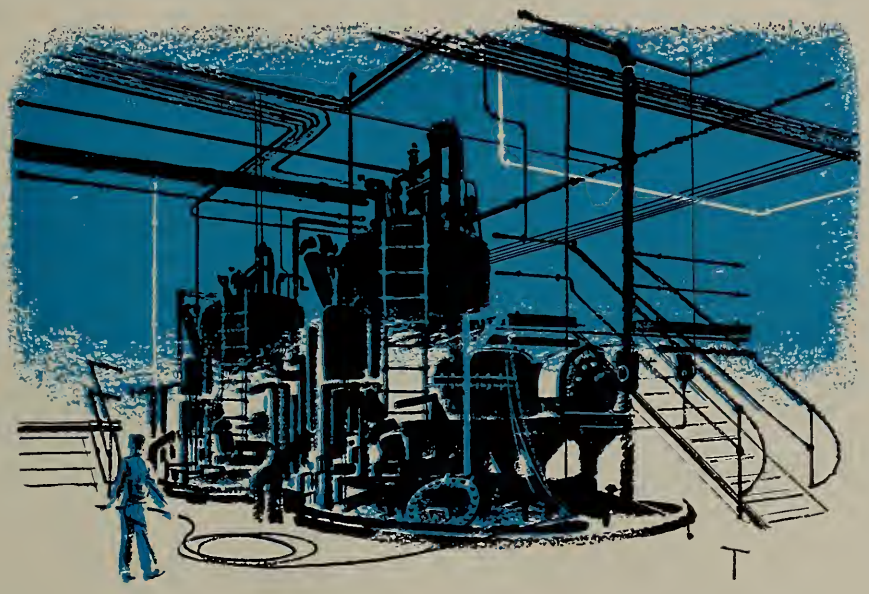
Dr. Foster was indignant, and rightly so, at the false propaganda circulated by those who are advocating federalized medicine after the pattern of Great Britain. He properly pointed out that Oscar Ewing during a long period of time as federal social security administrator used public funds

(Continued on Page 26)

AUREOMYCIN

Lederle

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases.



The isolation of crystalline aureomycin from the fermentation mash is an intricate task. It must be done in such a way that inactivation or loss of the antibiotic is minimized. In addition, the removal of impurities must be so complete that the finished product will cause a minimum of undesirable side-reactions. For this purpose, highly specialized technical equipment is employed, in order to effect liquid-solid and liquid-liquid extractions. Vacuum concentration and crystallization are carried out in glass-lined tanks, to avoid heavy metal contamination. The temperature and degree of vacuum are automatically controlled by means of precision instruments and the purification of the product is carefully followed by laboratory tests.

Aureomycin is now available in a number of convenient forms, for use by mouth and in the eye. New forms of this antibiotic of unsurpassed versatility are constantly being brought out.

Capsules: *Bottles of 25 and 100, 50 mg. each capsule. Bottles of 16 and 100, 250 mg. each capsule.*
Ophthalmic: *Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.*

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY 30 Rockefeller Plaza, New York 20, N.Y.

SLANDER

(Continued from Page 24)

and persons hired with tax money to attack the medical profession and to promote socialism.

Along these same lines Detroit newspapers recently have published an advertisement under the name of the "CIO national health committee" in which doctors are unfairly attacked by untruthful statements.

For example, the advertisement says doctors "fought vaccination against diphtheria and other contagious diseases by public health authorities." That has not been true in Michigan communities where doctors have urged vaccination and encouraged their patients to go to public health officers or school doctors when such service was available. In fact, the records show that it was the Jackson County Medical Society which started a campaign against diphtheria here with free immunization of children in school in 1922—28 years ago!

* * *

The ad says doctors "fought against the reporting of communicable diseases and public health services to control TB." That has not been true in Jackson or elsewhere in Michigan in the modern era.

It says, "they still oppose free diagnostic centers for TB and cancer." That is false. Free tuberculosis diagnostic service for the schools was started here in 1929, inspired by the medical society, and it still continues. The state medical society set up the free diagnostic centers for cancer throughout the state, manned without charge by the best available men. Our Michigan rheumatic fever control, which has been operating with the blessing of the medical society for seven years, is called the best in the United States. Further, as an example of Jackson's own experience the crippled children's clinics here have commanded the services without charge of our best orthopedic surgeons and nurses as well as famed surgeons from the university.

The CIO committee says they, the doctors, "fought the American Red Cross blood bank plan." Jackson knows something about blood banks, being the pilot city for the nation. Dr. T. E. Schmidt, of Jackson, is credited by the civil defense administration with major credit for success of the project which he long urged. Dr. Schmidt is not paid for his service. Other doctors likewise contributed services as did nurses.

* * *

The Detroit advertisement says, the doctors "fought voluntary insurance plans, until they could no longer stop them." Where does the CIO committee get such misinformation? The Michigan State Medical Society by resolution undertook organization of group health insurance 18 years ago —in 1932. However, it was not until 1939 that the legislature passed the necessary laws to permit such operation. This Blue Cross plan for hospital, surgical and medical insurance insures more than 2,000,000 persons in Michigan; and it was started by doctors before anybody was talking audibly about any form of government medicine.

Further the CIO committee and Oscar Ewing charge doctors with opposing expansion of medical schools. The fact is that the Michigan Medical Association is on record as having appealed to the legislature to expand the teaching and laboratory facilities of the state's two medical schools, the University of Michigan and Wayne University.

Doctors are human beings. Some are greedy, unprincipled and self-centered. But they are the exceptions. You can't make a good man out of a sloth or scoundrel by giving him a medical degree. But the vast majority of doctors live up to the highest standards of human service, and they certainly do not deserve to be libeled and slandered by promoters of socialistic nostrums.—*Jackson Citizen-Patriot,* Nov. 3, 1950.

A digital examination will usually distinguish cancer of the hypopharynx from retropharyngeal abscess; the latter is soft, nonulcerated and hemispheric.

* * *

Obvious cancer is late cancer in the breast.

* * *

Nine-tenths of all breast cancers can be palpated by the physician.



ROUGH HANDS
FROM TOO MUCH SCRUBBING?

Soothe rough, dry skin with AR-EX Chap Cream. Contains healing ingredient, carbonyl diamide. *Aids severely chapped and broken skin.* Pleasant to use. Scented or Unscented. *Send for sample.*

AR-EX COSMETICS, INC., 1036-J W. Van Buren St., Chicago 7, Ill.



NOW PROOF . . . in an instant, Doctor, PHILIP MORRIS are LESS IRRITATING

Just Make This Simple Test:





1 . . . light up a PHILIP MORRIS

Take a puff — DON'T INHALE. Just s-l-o-w-l-y let the smoke come through your nose. Easy, isn't it? AND NOW . . .

2 . . . light up your present brand

DON'T INHALE. Just take a puff and s-l-o-w-l-y let the smoke come through your nose. Notice that bite, that sting? Quite a difference from PHILIP MORRIS!

YES, your own *personal experience* confirms the results of the clinical and laboratory tests.* With proof so conclusive, would it not be good practice to suggest PHILIP MORRIS to your patients who smoke?

PHILIP MORRIS

Philip Morris & Co., Ltd., Inc.
100 Park Avenue, New York 17, N. Y.

Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245; N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592; Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

Political Medicine

LET'S REMEMBER THE SEA GULLS!

We wonder if there isn't something of a moral for the American people in the story of what is happening to the sea gulls up in St. Augustine, now that the shrimp fleet has left that area for Key West.

It seems the sea gulls up that way have forgotten how to catch fish for themselves. For many years they have been depending for their food on the scraps and waste thrown overboard from the shrimping fleet. It was a sort of super welfare state for the birds, and the free dinners made it unnecessary for the gulls to depend on their own talents to secure food.

But, suddenly, the shrimp fleet went away. New and more productive fishing grounds were located off Key West and the shrimp boats deserted St. Augustine.

The sea gulls haven't been able to adjust themselves to the new situation. According to an INS report, the reefs and the shores around St. Augustine are lined with long silent rows of gulls with their dark eyes turned prayerfully out to sea—waiting for the shrimp fleet and the free meals that won't return.

Nature has played the sea gulls a dirty trick. As generation after generation of gulls learned to depend on the shrimp fleet instead of their own resources to obtain food, parent gulls apparently forgot to teach their little ones their age-old methods of catching fish. So today the gulls are starving. They are no different in physical makeup than the sea gulls of Ft. Lauderdale, but whereas our gulls can exist through their own efforts, the gulls of St. Augustine are starving by the hundreds because their welfare state suddenly disappeared and with it went their ability to fend for themselves.

The people of St. Augustine are trying desperately to save the gulls that are left. A city-wide effort is being made to round up table scraps and movie popcorn to tide the birds over until they can once more learn to feed themselves.

But naturalists aren't too sure what will happen. They are puzzled over the apparent complete loss of the sea gulls' natural fishing instincts. Some believe the cycle will be completed without the gulls ever recovering their natural fishing ability.

It's a strange paradox that Nature thus gives us. Here we have some of the most independent creatures of the Universe, who were given marvelous talents to take care of themselves, victimized because they succumbed to the "something for nothing" lure. They became dependent on unnatural conditions to such an extent that parents apparently forgot to teach their offspring how to get along otherwise. Now with the free food gone, the offspring of these indolent parents are paying the penalty.

We wonder if people aren't a great deal like the sea gulls of St. Augustine. We wonder how many Americans have swallowed the idea of the welfare state to the point where they think it is no longer necessary to teach their offspring that the day of government handouts and security for all may sometime draw to a close. And we wonder then how many Americans may be left like the gulls—puzzled and bewildered because their sustenance has disappeared and they have no resources of their own to fall back on.

Americans don't have to look far to see the sea gull story translated over into human behavior. We have in England a living example of a "something for nothing" theory gobbled up by the people. Like the sea gulls of St. Augustine, the people of Great Britain have accepted unnatural conditions as a substitute for depending upon themselves. The English government is the "shrimp fleet" which provides the people of Britain with food, clothing and shelter. As long as this government is firm and strong and as long as there are shrimp (meaning taxes) enough to keep it in business, the people will be safe.

But let the shrimp be exhausted, as is now happening, then the government must seek new beds. It must, of necessity, move on and leave in its wake a mass of miserable people totally unaccustomed to using their own God-given talents and resources to exist.

There is the moral in this story of the sea gulls of St. Augustine. It's a pungent moral and one that every voting American should well consider. Nature has a way of exacting a heavy toll from those who look upon her gifts as unnecessary. As a nation, we here in America have been singularly blessed with a tremendous capacity for using our skills and our ingenuities to ever improve our way of living. But we have earned our keep by wresting it out of the ground, the sea and the air, through the exercise of our own talents.

We will keep those talents only by continuing to use them. The minute we cast them aside as no longer necessary, we will forfeit them as surely as the sea gulls of St. Augustine forfeited their talent to provide themselves with food.

Let's not be that foolish. Let's remember what happened to the sea gulls whenever we are tempted by the Washington "shrimpers" to leave our own board and dine at the government scrap table of false security.

Old Dame Nature is a wise though sometimes cruel teacher. She might have used the sea gulls of St. Augustine as a red flag of warning to the American people. Let's heed it while we still have time.—From the *Fort Lauderdale Daily News* (Florida), April 12.

AFL UNION OPPOSES HEALTH BILL

The Chief of the AFL Carpenters' Union declared he and a majority of his union's 700,000 members stand with doctors in opposing compulsory health insurance.

William L. Hutcheson, general president of the United Brotherhood of Carpenters and Joiners of America, and a vice president of the American Federation of Labor, told this to the American Medical Association's house of delegates.

* * *

Ill and unable to appear in person, his speech was read by an assistant.

(Continued on Page 30)



MODERNIZE YOUR LABORATORY...

Make your laboratory as efficient as your examining room. Equip it with a modern Hamilton laboratory bench designed for compactness, yet with space and accommodations for everything you need. Save valuable time and precious energy by concentrating all your laboratory equipment and materials in this one convenient unit.

The working surface is dark gray unbreakable resisto 13⅜"x65". It has seven large, wood-steel drawers ranging from 3⅛" to 7¾" deep. The big cupboard provides ample storage space for bulky boxes and bottles. Chrome plated gas, air, electric and water services are located above the working surface. Above the cupboard unit is an acid resisting porcelain enameled sink. See this "One-Piece" laboratory at—Randolph's.

"For Finer Equipment"

Randolph Surgical

SUPPLY COMPANY

PHYSICIANS AND HOSPITAL SUPPLIES

60 COLUMBIA ST. WEST • WOODWARD 1-4180 • FOX THEATRE BLDG. • DETROIT 1, MICH.

Blue Shield News

MICHIGAN DOCTORS FAVOR NEW $5,000 BLUE SHIELD CONTRACT

The letters sent by Michigan Medical Service to all the doctors in Michigan, on November 7 and 10, announcing the new $5,000 family income ceiling contract, brought more than 600 unsolicited responses before December 1, including fifty new participating agreements and seven cancellations.

The Michigan Medical Service field force, which has been interviewing doctors throughout the State on the question of the new contract, has reported overwhelmingly favorable sentiment.

As a result of the letters and interviews, Michigan Medical Service has concluded that the medical profession is clearly in favor of the new contract. Final details are being ironed out preparatory to offering the $5,000 contract to the public.

NATIONAL BLUE SHIELD SERVICE, INC., ORGANIZED

An important development on the National Blue Shield front is the establishment of National Blue Shield Service, Inc., on December 3. It has been incorporated in Ohio and chartered as an Ohio disability insurance company.

National Blue Shield Service, Inc., will be operated in conjunction with Blue Shield Plans to develop (1) supplemental coverage to that provided by the local Blue Shield Plans and (2) coverage for the areas that have no Blue Shield Plans, in cases where national accounts are involved that require uniform coverage on a nationwide basis.

National Blue Shield Service, Inc., will in no way infringe upon the autonomy of each Plan, or take over any of their administrative functions, but will serve only to provide the inter-plan mechanics necessary to service the increasing number of accounts that require national coverage under a contract providing uniform rates and benefits.

Under the Articles of Incorporation, fifteen directors are specified. At least eight of the directors must be doctors of medicine, with the 41 contributing Plans entitled to nominate ten of the fifteen directors.

At its meeting in Cleveland on December 3 and 4, the Blue Shield Commission, in order to expedite the organization of National Blue Shield Service, Inc., unanimously decided to recommend a list of fifteen persons to be elected as the first Board of Directors for the limited period pending the full organization of the national corporation.

The list proposed is as follows: Drs. L. K. Sycamore, Frederic E. Elliot, Carlton E. Wertz, J. A. Daugherty, A. R. Lutz, O. B. Owens, L. Howard Schriver, R. L. Novy, F. L. Feierabend, A. J. Offerman and H. L. Gardner.

Also, Dr. Paul R. Hawley, Chicago, Charles H. Coghlan, Executive Vice President of Ohio Medical Indemnity, Jay C. Ketchum, Executive Vice President of Michigan Medical Service, and W. M. Bowman, Executive Director of California Physicians' Service.

It is hoped that the first election on a permanent basis and the first annual meeting of shareholders can be held in Biloxi, Mississippi, at the time of the 1951 annual meeting of the Blue Shield Medical Care Plans.

DRAFT FAILS TO MEET NEED FOR MEDICS

Selective Service failed to produce on schedule 300 physicians the Army had requested to relieve a dire shortage.

A draft spokesman said he did not know when the quota could be filled.

The Surgeon General's office reported that the shortage of physicians and dentists had put the Army's medical service "under terrific strain," with many professional men working 24 to 30 hours straight.

It appealed to physicians to volunteer immediately.

A draft spokesman said the process of examining and classifying the medical men is proceeding, but he did not know when the first of them would be inducted.

The Surgeon General's Office said it is short 450 physicians now, even though 229 had volunteered up to the end of last week.

Besides the 300 physicians requested for Wednesday, the Army has asked draft officials to supply 300 physicians, 300 dentists and 50 veterinarians by Dec. 15.

Selective Service has been asked to produce a total of 1,522 physicians, dentists and veterinarians by January 15.—*Detroit Free Press,* Nov. 16, 1950.

MEDICAL CARE FOLLOWING A FUTURE ATOMIC BOMBING

It is unrealistic to plan for less than 40,000 to 50,000 severely burned persons in a single (wartime) atomic explosion. Testimony before the Joint Committee (on Atomic Energy) has suggested that merely furnishing the initial first aid and treatment for a disaster such as Hiroshima would demand nearly 200 railroad box cars for transportation! Or one can portray the dimensions of the problem differently. It has been estimated that ideal care of a severely burned patient would call for forty-two tanks of oxygen, three nurses, 2.7 miles of gauze, thirty-six pints of plasma, forty pints of whole blood, and 100 pints of other fluids. Or one can set forth the problem's magnitude yet differently. The Joint Committee has been told that several million pints of blood might be needed during the first few weeks after an attack on our civilian population.

If, within a brief span of time bombs numbered by scores were detonated in American cities, the hard fact is that completely adequate medical treatment would be impossible.

The only complete defense against atomic weapons would come from abolishing them through effective international control.

(However), the Joint Committee hearings have revealed that in Washington, in the States, and in our local communities a great deal of sensible civil defense planning is now under way, and that continuing progress can be expected.

From an address by Congressman Carl T. Durham, Vice-Chairman of the Congressional Joint Committee on Atomic Energy, at the 1950 Convention of the American Pharmaceutical Association, Atlantic City, New Jersey, May 4, 1950.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

VOLUME 50 JANUARY, 1951 NUMBER 1

Observations on the Intravenous Use of Pitocin in Obstetrics

By Lawrence F. Burnett, M.D.
Newark, New Jersey
and
S. A. Cosgrove, M.D., F.A.C.S.
Jersey City, New Jersey

FROM TIME immemorial those responsible for the care of women in pregnancy and parturition have been troubled by the failure of the uterus to contract properly and efficiently when it should, or when they want it to. Hence, such attendants have always been intrigued and interested in substances which have the power of augmenting uterine contractions. The most dramatic situation in which such failure of proper contractility of the uterus endangers the mother's life from hemorrhage is following the completion of parturition due to atony of the uterus. The next most common situation in which the doctor naturally desires the aid of an oxcytoxic agent is where labor fails, due at least in part to failure of efficiency of uterine contractions. The third broad situation requiring such an agent is where it is specifically desired to initiate artificially contractions of the uterus looking toward the early expulsion of the baby. Such necessity for induction of labor attends various conditions in which it is feared that prolongation of the pregnancy may be against the interest of the mother or the child.

To date two groups of effective agents for the stimulation of uterine contractions exist. They are ergot and its synthetic derivatives, and several products of the posterior pituitary gland of animals.

It is probable that ergot has been known to possess this property for many centuries. Its first introduction into formal obstetric therapeusis, however, would appear to be a letter from Dr. John Stearns of Saratoga County, New York, in 1807. He called it "pulvis parturiens." He appears to have used it mostly to stimulate sluggish labor. Even in his original communication, however, he warned against its use except where conditions were favorable for natural delivery. Following this introduction the drug became very widely used and was recognized as one of the important items in the obstetric armamentarium. Curtis some years ago named it as one of the very few contributions to obstetric practice which up to that time had emanated from the United States. Very naturally its wide use was accompanied by a great lack of discrimination in that use. Practitioners even up to fifty years ago appear to have used it rather indiscriminately in all stages of labor. Inevitably such use led to frequent tragedy, so that by the early years of this century rigid rules for the restriction of its use were embodied in medical teaching, which was summed up in the dictum that it should never be used before the completion of the third stage of labor.

In 1906 Dale published an observation that pituitary extract would cause contraction of uterine musculature. It was apparently not taken advantage of, however, in a therapeutic way until Bell published his results of three years' observation in 1909. He gave recognition to Hendry for priority in its actual use. About 1913 it became available commercially and was at once widely used. The senior of us well recollects his first use of pituitary extract in that year. The patient was a grand multipara whose baby's head hung in mid-pelvis with the cervix fairly well dilated and

From the Margaret Hague Maternity Hospital, Jersey City, New Jersey.
Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, Detroit, Michigan, September 20, 1950.

the woman's pains petering out. He administered a full ampule of pituitary extract and hardly had time to take position to receive the baby before it was catapulted out of the vulva at him. Needless to say, both doctor and patient were decidedly impressed with the new "wonder drug."

From this time on men forgot all the lessons that a century's experience with ergot had taught them. Pituitrin, as ergot had been before it, was employed in a most indiscriminating fashion, and in what we would today consider tremendous doses. For about a decade nearly all the articles both in this country and abroad were laudatory of the new drug and, strangely enough to us of today, insisted on its safety. But only shortly after his own first use of it one of us witnessed a case in which the attendant, believing that his primiparous patient had the head fairly well into the pelvis and the cervix fully dilated, administered a full ml. of pituitrin. She promptly ruptured her uterus and died before surgical intervention could be undertaken. Postmortem examination showed that the supposed full dilatation of the cervix was not actually more than 2 cm. Experiences such as this came to be encountered so frequently that once more physicians scrutinized the use of pituitrin from the standpoint of its dangers, once more recognized the great danger inherent in its use under improper conditions, and once more arrived at the dictum that pituitrin should never be used before the termination of the third stage of labor.

But while sounder ideas were thus applied to the use of both ergot and pituitary extract and their modern refinements in form, the desirability of the induction of labor prior to its natural onset remained a very present problem in everyone's practice. Formerly the conditions for which induction of labor was thought to be desirable formed a large list, including the following:

Contracted pelvis	Psychoses
Toxemias of pregnancy	Epilepsy
Antepartum hemorrhage	Neuritis
Accidental hemorrhage	Tetany
Heart disease	Otosclerosis
Tuberculosis	Polyhydramnios
Diabetes	Hydatidiform mole
Hyperthyroidism	Habitual death of fetus
Chorea	Postmaturity
Pernicious anemia	Intrapartum death of fetus

Many of these causes are obsolescent in reference to modern practice. But the necessity of terminating pregnancy in serious toxemic states is increasingly recognized. Moreover, some practitioners induce labor electively for their own convenience and that of their patients. This indication we by no means endorse.

For almost four centuries induction of labor has been practiced by a great variety of means, many of which have been abandoned, and none of which have been uniformly successful.

Men have therefore persisted in the search for a reliable drug to employ as part of, or in substitution for, other methods, and it has been repeatedly conceived that pituitrin might be a nearly ideal agent for this purpose if it could be so used as to eliminate its danger. Hofbauer in 1912 and Watson in 1913 published reports of successful induction of labor with pituitary extract. Through the years the safety of the inclusion of pituitrin in various techniques of induction was sought by the use of fractional dosages. Thus Watson in 1922 published a combined technique for induction including doses of 0.5 ml. of pituitary extract, repeated if necessary to a total of six injections. He did not escape considerable criticism for the inclusion of pituitary extract in this regime, but it nevertheless became widely accepted for a while. In 1927 Hofbauer suggested administering pituitary extract on small pledglets of cotton inserted into the nostrils, from which he assumed the absorption would be slow, thus minimizing the danger from the start. His purpose was to immediately terminate any excessive effect of the pituitary extract by prompt removal of the pledglets of cotton. This method, however, did not obtain wide acceptance, as its results did not prove especially satisfactory.

Still men's imaginations lingered on pituitrin or pitocin, the nearly pure oxcytoxic fraction of pituitary extract, and throughout the years various authors made reports of its use, claiming a satisfactory degree of success. In 1947 Eastman tentatively reported a fairly large series of cases in which pituitrin was used for the induction of labor. Shortly after Eastman's report, Hellman, at that time in Eastman's clinic, suggested the constant intravenous administration of very dilute solutions of pitocin with the idea that by this means the effect could be very critically appreciated. The administration was instantly stopped in event of any degree of undesirable effect of the drug on the uterus. Since that time Stone, Hellman, Harris, Reynolds and others have reported

the use of pitocin for the induction of labor in this fashion.

The present report is of a series of 457 cases in which Hellman's suggestion of intravenous administration of very dilute solutions of pitocin have been used for the induction of labor, for the augmentation of deficient uterine contractions during the second stage of labor, for the control of immediate and remote postpartum bleeding, and for the expulsion of the retained placenta in certain cases of abortion. The series in some categories is too small upon which to base conclusions.

In reporting any method of induction as successful, it has seemed to us that the induction must be successful on the first attempt. In Matthieu's report in 1927 he stated that by the method of induction of labor therein recommended, 71 per cent were successful at the first trial, whereas 96.7 per cent were successful on repeated trials. To claim success of any method when it has to be used repeatedly would seem to us fallacious. If one gave hypodermic injections of sterile water for the induction of labor and continued to repeat it frequently enough, eventually labor would, of course, occur. But one would hardly ascribe its onset to the sterile water. So that in our own series we have defined successful results as those in which the initial use of the method succeeded.

Our whole series in which pitocin was administered in very dilute solution by the intravenous method was 457. Of these, 321 were for the induction of labor. Of this number 247 (77 per cent) were successful as herein defined—that in spite of the fact that in the majority of cases the cervix at the beginning of induction was less than 4 cm. dilated. In the rest of this group, seventeen cases (5.3 per cent) responded to repetitions of the induction but are classed as failures according to the strict definition of success which we have adopted.

A much smaller number were subjected to the administration of pitocin in this fashion for augmentation of pains in labor. These cases were of two groups. First there are those cases in which the advancement already attained promised early successful conclusion of the labor by a moderate augmentation of the pains existing when it was employed. In several of this group we are convinced that the spontaneous outcome of labor which was effected would not have occurred except by the use of the pitocin. Second there are those cases characterized by very inadequate uterine contractions in the presence of borderline disproportion in which we did not desire to resort to radical surgery until that need became evident in the presence of more adequate contractions than the patient had exhibited up until that time. Here, if labor did not progress toward successful outcome in the presence of reasonably satisfactory labor induced by the pitocin, the indication for radical surgical intervention became clearcut. Of the first of these two groups there were eighty-six cases, forty-four of which delivered spontaneously, twenty-eight necessitating only the use of simple forceps extraction for eventual delivery. Of the second group fourteen cases did come to section, whereas in four cases we felt that necessity for recourse to section had been obviated by the pitocin.

Fifty cases were treated for immediate or delayed hemorrhage due to uterine atony after the termination of the third stage of labor. In all but one of these the method appeared to be effective, although we have no basis for believing that it was more effective than the administration of pitocin by other means.

Only a very few cases have been treated for postpartum or postabortional retention of the placenta. The method has been successful in these cases. But again we have no strong conviction that the administration of pitocin by other methods would have been less effective. We feel, however, that the maintained minimal effect of pitocin which the method represents is gentler and perhaps might be in some degree less dangerous than the administration of larger doses by other methods. Besides, the by no means rare occurrence of successful induction by pitocin intravenous drip after the failure of pitocin series by hypodermic may indicate the actually greater efficiency of the intravenous method.

Our technique of induction is to give 2 ounces of castor oil, followed in one hour by two warm soap-suds enemata; then we immediately start the intravenous administration of 0.5 ml. of pitocin (5 International units) in 500 milliliters of 10 per cent glucose in distilled water. The tube from the flask of this solution is connected to the intravenous tubing by a Y-tube, the other limb of which is connected to a flask of 10 per cent glucose in distilled water. Stop-cocks are placed between either flask and the Y-tube. In this manner either the pitocin solution or the glucose solution may be interrupted and the other allowed to run at

will, depending upon the patient's reaction to the pitocin solution.

Parke, Davis pitocin is supplied in 0.5 ml. ampules containing 5 International units of pitocin. The dose indicated on the carton is 5 to 16 minims repeated at twenty- to thirty-minute intervals.

This would seem to imply that amounts up to 16 minims are eliminated in thirty minutes.

Our own practice for induction is to use doses of 0.5 to 2 minims at thirty-minute intervals.

This means that immediately on absorption of 0.5 minim hypodermically, say within one minute of the injection, there would be ⅓ of a unit in the circulation.

In the intravenous use of highly dilute solutions we use 5 units in 7500 minims or 1/1500 units per minim. If such solution is run at 60 minims per minute, there is introduced into the circulation in one minute 1/25 of a unit, or about one-eighth of even the smallest hypodermic dose. At the rate of elimination indicated above, there can be no accumulation at this rate of dosage.

We have not included artificial rupture of the membranes as a primary part of the inductive procedure. Reycraft, to whom we are indebted for certain of the data in this paper, and who has recently reported a large series of cases induced wholly by the artificial rupture of the membranes, has experienced an 18 per cent latent period in primigravidas of six hours or more up to twenty-seven hours, and in multigravidas a 10 per cent latent period of six hours or more up to twenty-one hours. We therefore prefer to reserve artificial rupture of the membranes until labor is well established and considerable progress in the dilatation of the cervix and the accommodation of the presenting part to the inlet has been attained.

No accidents to mothers have resulted from our use of this method and no cases of maternal morbidity dependent upon it have been observed. Only one baby was lost whose death can in any fairness be attributed to the method. The gross fetal loss was:

Thirteen cases of antepartum death *in utero,* including two missed abortions, one abruption, one strangulation by cord, five associated with severe maternal toxemia, one with maternal diabetes, and three for which no cause could be found;

Seven intrapartum deaths, including one anencephalus, one occurring before pitocin, one injury in breech extraction, two associated with abruption, one with placenta previa, and one unknown. There is a possibility that one of the abruptions might have been due to the pitocin.

Seven neonatal deaths, including one anencephalus, one hydrocephalus, one hydrops fetalis, one from intracranial trauma, one prolapsed cord, and two from atelectasis in premature infants of toxemic mothers.

The total fetal loss therefore is twenty-seven (5.91 per cent).

In summary, we present 457 cases of the intravenous use of very dilute solutions of pitocin and have found it to be so far entirely devoid of maternal, and of minimal fetal, danger. Our percentage of success in the primary use of this method in the induction of labor compares favorably with the reports of other methods of induction. It is a preliminary report only. A subsequent one will add further cases to the series, and embrace a much more detailed analysis of the data concerning all.

MSMS



Overcoming Hemorrhagic Puerperal Mortality

By S. A. Cosgrove, M.D., F.A.C.S.
Jersey City, New Jersey

THROUGHOUT medical history the loss of women's lives in childbirth has been caused by three principal factors, namely, sepsis, toxemia and hemorrhage. Until less than a century ago sepsis caused more deaths than either of the other factors named. A generation ago the three ran more or less together with sepsis and toxemia predominating.

In the last quarter century, and particularly within the last decade, the general mortality rates from all causes throughout the country have been materially less. For instance, in Michigan there were 9.3 puerperal deaths per thousand in 1920, 2.19 in 1940, 1.7 in 1947. Septic deaths have almost disappeared due to improvements in techniques in respect to antisepsis, asepsis, and the elimination of unnecessary and injudicious surgery; the influence of the introduction of sulfa drugs and of numerous antibiotics has also been a tremendous contribution to the control of septic complications of parturition. Sepsis is now a rare cause of death where cases are properly hospitalized, and where the hospitals have the opportunity of controlling them before they are essentially moribund.

Toxemia also has become theoretically nonexistent, on the assumption that if prenatal observation and control is adequate and universal, no patient need approach danger of death from toxemia. This almost complete disappearance of toxemic deaths is literally a fact in those great clinics which are able to control all their patients from a period early in pregnancy. So much is this true that some clinics complain that they do not see enough toxemias, especially the fulminant life-threatening types, to furnish material for undergraduate teaching.

Unfortunately, the education of the laity and the profession as to the need for, and proper quality of, prenatal care has not attained universally the degree of perfection represented in the clinics alluded to. Therefore, those clinics which have the responsibility of admitting patients whom they have not had under their own control since early pregnancy, do continue to encounter many cases of severe toxemia and a few even of eclampsia. But the elimination of meddlesome obstetric surgery and the development of physiologic regimes of treatment have caused a marked improvement in the mortality even of this group of cases. The result, therefore, has been that both from sepsis and toxemia, maternal mortality has kept fair pace with the improvement in general mortality records. These factors have actually been the backbone of the whole mortality decrease.

The improvement in mortality from hemorrhage, however, has not quite kept pace with that of sepsis and toxemia. It has very definitely improved, and this improvement is increasingly shown during the past few years. Ten years ago the death rate from hemorrhage in excellent clinics was about 1 in 1,400 cases; today, in the whole state of New Jersey the rate is about 1 in 4,500.

There are reasons why successful control of the mortality from hemorrhage does not lend itself to the several factors which have so aided in controlling sepsis and toxemia. Certain hemorrhages are not preventable and when they occur, do so unexpectedly and rapidly develop most urgent and dangerous implications. But certain classes of hemorrhage are in large degree preventable. Whether preventable or not, there has been vast improvement in the resources for meeting the danger which all of them represent. So far is this true that I am able to report to you the almost entire elimination of hemorrhagic death in many thousands of cases. Mr. John Stallworthy, of the Oxford Area hospitals in England, recently reported no hemorrhagic death since 1940 and definitely suggests the maintenance of this record as an attainable objective. In our own clinic there has been only one hemorrhagic death since May, 1945, representing 46,000 deliveries. If this can be done in reference to such large groups of cases, the possibility of extending it to other large groups, and to communities and states, is reasonably possible. This, like all ideal attainments, is achieved only by co-ordination of effort along many lines, at the expense of thought, planning, co-operation of many individuals, and actual monetary expense.

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, Detroit, Michigan, September 20, 1950.

Every pregnant woman bleeds at some time before the pregnancy is completed, no matter what the form of pregnancy may be and no matter what the form of its termination. In normal pregnancy such bleeding is entirely physiologic and is clinically unimportant provided it is restricted within rather narrow quantitative limits. Thus, the very slight bleeding which Hertig has shown sometimes occurs physiologically in the very early weeks of pregnancy, associated with the nidation of the ovum; the "show" which frequently signals the beginning of labor, representing some escape of blood from the dilating turgid cervix; the bleeding which physiologically attends the detachment of the placenta during the third stage of labor; and the moderate lochia which physiologically characterizes the immediate puerperal period—are all physiologic.

Bleeding, however, which attends pathological pregnancy, as ectopic gestation, abortion, premature separation of the placenta, placenta previa, is abnormal by reason of the fact that it does attend abnormal behavior of the pregnancy. Besides, all of the other forms of bleeding which I have characterized as physiological may become pathological by reason of quantity of the bleeding attending physiological phenomena listed. The very slight early bleeding attending the nidation of the ovum may become excessive and manifest itself as abortion. Abortion itself may present dangerously excessive hemorrhage on occasion. The bleeding attending the beginning of the dilatation of the cervix in rare precipitous labors may progress to actual extensive laceration of the cervix with consequent dangerous bleeding. The separation of the placenta may be attended by so large an amount of bleeding as to jeopardize the patient. The bleeding of the fourth stage of labor, the period immediately following the third stage, frequently manifests itself as postpartum hemorrhage. This may be due to many causes but by strict definition is limited to that caused by inertia of the uterus. Therefore the obstetrician should recognize that every case of parturition represents potentialities of dangerous hemorrhage. He must try to anticipate that possibility whenever he can. He must invariably be prepared to actively manage his cases of abnormal bleeding so that lethal outcome does not occur. In other words, he must have a program for efficiently controlling hemorrhage and its effects when it occurs, with the utmost promptitude.

Such a program will be of two phases. I have indicated that some hemorrhages are unavoidable and unpredictable, some of them very definitely avoidable. The scheme then upon which the obstetrician relies must seek to avoid as many hemorrhagic situations as possible. This will involve his whole philosophy of practice and will concern itself with all the stages of labor.

During the first stage of labor all factors concerning the patient's general condition and her behavior in labor must be scrutinized to appreciate any imminent potentiality of hemorrhagic danger. For instance, does she show some exidence of toxemia? If so, the possibility of premature separation on the basis of the toxemia should be foreseen and means taken to provide for its prompt treatment should it occur. Does she show dystocia or possibilities thereof? Then the danger from hemorrhage from laceration caused by operative vaginal delivery, or excessive hemorrhage attending cesarean section, must be foreseen and provided against in advance. Close observation to detect any evidence of actually occurring hemorrhage either evident in obvious vaginal bleeding or the constitutional effects of hemorrhage, should be maintained. This alertness to anticipate potentialities by provision of means of meeting them will pay big dividends in the occasional emergencies which will arise.

During the second stage management must have for its primary objective avoidance of premature or unnecessary surgical interference. I would like to stress this in especial reference to the time factor. No phenomenon of labor should be measured by the clock. There is no reasonable compulsion for limiting the time duration of any of the phenomena of labor. There can be no fixed proper length of the so-called second stage of labor. There is no compulsion to terminate labor within any particular time following the full dilatation and retraction of the cervix, because the dilatation of the cervix has no necessary relation to the progress of the presenting part itself through the parturient canal. The cervix will often be fully dilated and retracted before the head is completely engaged and obstruction to its complete passage of the inlet has been eliminated. Hence, in many cases, the obstetrician should permit the spontaneous evolution of complete accommodation of the presenting to the inlet and its descent to the outlet without interference. This is almost invariably salutary, no matter what

the actual time consumed in accomplishing it may be. Such time is helpful alike to the obstetrician, his patient, and her baby. It will frequently spell the difference, if surgical interference shall eventually be necessary, between a relatively difficult instrumental delivery with very definite jeopardy to the baby, and a facile delivery free of such jeopardy.

It should be unnecessary, but unfortunately is not, to emphasize over and over that instrumental or manual operative delivery should be deft, gentle, and very deliberate. There are very few actual indications for haste in vaginal procedures for delivery. Even in the presence of fetal distress, which seemingly indicates the need for such haste, haste itself will very much more seriously threaten the slender margin of survival which such a distressed fetus presents, than will the extra time necessary in proceeding with the utmost gentleness and deliberation.

The management of the third stage of labor gives opportunity for very important prophylaxis against pathological hemorrhage. So much is this true, that it more importantly devolves upon the responsible attendant to himself carry out, or at least most closely supervise, the conduct of the placental stage of the delivery than the fetal stage thereof. There will be almost as many ideas as to how the third stage should be properly managed as there are thoughtful men actually carrying out that management. In individual experience over any great period conviction may vary from time to time in regard to that management. Whatever management any particular individual believes is best at the time he employs it, the principle is transcendingly important that the responsible accoucheur should give it his definite and undeviating attention.

My own management of the third stage for several years has been to give intravenously 1/320 gr. ergotrate at the birth of the head; the torso is delivered very slowly, generally by spontaneous expulsion rather than by artificial traction. I think that this deliberation is valuable; it is a close simulation of physiologic conditions; the pressure on the torso purges the baby's respiratory passages of secretion and aspirated liquid; the mild anoxia stimulates respiratory effort; the cleared air passages and spontaneous respiration prevent dangerous anoxia.

As the torso is fully delivered, the fundus of the womb is immediately grasped by the operator or a *trained* assistant, but not manipulated; the placenta sometimes is promptly expressed spontaneously; if it is not, moderate squeezing pressure is made on the fundus at about the time that necessary attention to the baby is complete, and the baby disposed of; if the placenta does not deliver then, the patient is redraped for episiotomy repair and again moderate expulsive pressure is employed; if occasional repetition of such effort over a period not in excess of ten to fifteen minutes does not succeed, the placenta is manually extracted.

This management is applied only in cephalic deliveries; in breech delivery, the oxytocic is withheld until after the placenta is born. The duration of the third stage is definitely shortened; the amount of bleeding attending it is significantly reduced; occasional necessity for manual extraction is not attended with additional immediate or late hemorrhage, nor by maternal morbidity; if necessary at all, it is better employed early than later. My observation has been that the failure of the placenta to deliver is not often due to *incarceration* thereof, but almost always to its *incomplete separation.* While it is true that some of these cases might completely separate in a longer time, this delay would be at the expense of significant additional blood loss.

After the placenta and membranes are delivered, the uterus is lifted out of the pelvis by the fingers of one hand introduced above the symphysis, thus fixing the lower pole thereof, while the other hand continues to control the fundus. The most important detail of this or any other scheme of management of the third stage is the exclusive and continuous attention of one individual to the behavior and control of the uterus throughout, and following, this stage. Even if the accoucheur is so unfortunate as to have to work alone, it is necessary for him to concentrate his attention primarily on the placental stage of the labor.

Should there be bleeding following the third stage, the first necessity is to ascertain its source. Make sure, by careful tactile and visual exploration, that it is not coming from lacerations of the vagina, cervix or uterine body. If it is, surgical repair appropriate to the location and nature of such damage is carried out. If exploration of the uterine cavity shows retention of placental remnants, they should be carefully removed. Only when every other source of bleeding has been

carefully ruled out, may the cause of postpartum hemorrhage be assigned to uterine inertia. If this conclusion is accepted, oxytocics should be freely exhibited and firm bimanual control maintained by one hand in the vagina grasping the cervix, the other the fundus through the abdominal wall, for *as long as may be necessary.* Do not waste time and blood, and delude yourself by packing the uterus. Any bleeding which might conceivably respond to this measure will more surely and safely do so by the maintained bimanual control described. Clamping of the cervical parametrium through the vaginal fornices is doubtless occasionally effective, but is not devoid of danger. Strong instrumental traction on the cervix itself is sometimes just as effective.

A few cases, by reason of myometrial degeneration or undetected rupture of the uterus, demand extirpation of that organ. Decision as to such necessity should not be too long delayed if it is to succeed.

Time will not permit detailed discussion of the management of such abnormal phases of pregnancy and parturition as ectopic gestation, placenta previa, and premature separation of the placenta. In all, early recognition is of prime importance and gives opportunity for desirable individualization of management. Their importance depends on the extent of hemorrhage attending them. The importance of combatting the effects of such hemorrhage is paramount.

In all of the situations discussed, the outcome to the mother and often the baby depends on actively fighting the effects of hemorrhage. The first requirement is replacement of lost blood. Only whole blood can do this. Substitute liquids may be of some temporary value in restoring deficient volume of liquid in the circulation but only blood can replace the loss of the essential oxygen-bearing red cells.

To make prompt replacement of blood at all times quickly available, previous organization is just as essential as the provision by a municipality of an organized fire department in the control of conflagration.

This organization must start with the doctor and in the doctor's office. If the doctor has no resources of help, he must train himself to type and cross-match bloods, and to give transfusions. As soon as each prenatal patient is first seen, her blood group and Rh factor characteristics should be ascertained and recorded, and the record be furnished to the patient and to the hospital.

The hospital should maintain a blood bank, and that bank should constantly have on hand a certain quantity of processed blood, available in extreme emergency when time does not permit crossmatching. Even well-equipped and maintained blood banks should, if possible, have reciprocal arrangements with other blood banks, or with reliable donor agencies, to handle demands for blood in excess of their own current resources.

If the hospital is not able to maintain such a blood bank, arrangements may be made by it for prompt call on a list of previously typed donors.

Either of these arrangements may be organized on a community level either by the Red Cross or other volunteer agencies. This has been well done in many places. There has been discussion and experimentation in providing blood banks on state levels. The more remote sources of blood are, however, the less they can contribute to the very acute emergencies which obstetric practice represents.

In the hospital supplies of solutions of sugar in water or saline, and of plasma, with apparatus for their instant administration, should be maintained.

Personnel capable of accurately doing laboratory procedures necessary for safe transfusion, and to administer replacement liquids, should be promptly available at all hours.

The hospital must accept the responsibility for actual cash outlay for blood from its own resources if necessary, and someone should always be on duty with authority to implement that responsibility.

All patients should be promptly crossmatched on admission against available blood, if there is history of prior bleeding in parturition, if there is history or evidence of blood dyscrasia or severe anemia, if there is any evidence of bleeding on admission, if there is history or evidence of dystocia or any other potential basis for surgical interference.

The same procedure will be promptly carried out if any of these indications develop after admission or if wholly unexpected emergency arises.

If it appears probable or certain that transfusion is indicated, it should be promptly started, and the blood bank alerted for further supplies of

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Effect of Pregnancy on the Urinary Tract

By George C. Prather, M.D., F.A.C.S.
Brookline, Massachusetts

SEVERAL BOOKS as well as many scientific papers have adequately recorded the known facts concerning the influence of pregnancy on the urinary tract and the more common urological diseases associated therewith. They illustrate the fact that if one is familiar with physiological as well as pathological changes in the urinary tract during pregnancy, medical counsel will be of greater value to the patient. The purpose of this paper is to state the present concepts about the subject in brief form.

Since the earliest recorded observations by the anatomist Morgagni, in 1761, describing dilatation of the renal pelves and upper ureters during pregnancy, and the more complete description by the urologist Rayer, in 1839, there has been study and speculation as to the cause as well as the effect of the physiological hydronephrosis.

In order to illustrate this change easily by means of x-rays and to become oriented in the pyelographic world, let us say that Figure 1 represents a normal intravenous pyelogram in a nonpregnant female. Figures 2, 3 and 4 are intravenous pyelograms during normal pregnancies and demonstrate the degrees of hydronephrosis and hydroureter which are considered normal.

The pyelographic change begins about the fourth month and reaches a maximum state during the seventh, eighth or ninth month. Primiparas, in general, show a greater degree of hydronephrosis than multiparas if there has been no obstructive disease in the urinary tract prior to pregnancy.

Autopsy study by others has found the right upper urinary tract dilated in 85 per cent and the left upper urinary tract dilated in 72 per cent of primipara. X-ray studies by others and by Crabtree and Prather at the Boston Lying-in Hospital indicate that evidence of dilatation will be found in 85 per cent on the right and 55 per cent on the left. Thus, hydronephrosis and hydroureter (upper part) during normal pregnancy are well-established facts.

Several features of pyelograms in pregnancy are worthy of comment. Blunted calyces are a part

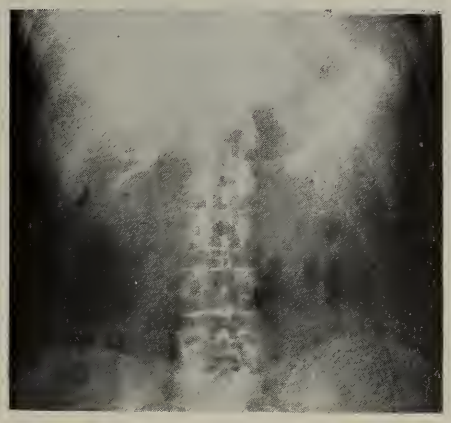


Fig. 1. Normal intravenous urogram in a nonpregnant female. Calyces are sharp, renal pelves intermediate, and upper ureters follow normal course.

of the picture. The degree of change in the renal pelvis is determined in part by the intrarenal or extrarenal pattern of this portion of the kidney prior to pregnancy and in part by the extent of the general process of dilatation. Ureteral dilatation is confined to the segment of the ureter above the brim of the bony pelvis and, if the films are good, can be seen to terminate in a cone-shaped narrowing at that region. Widening of the lower ureter is indicative of pre-existing or current urological disease. Commonly a pronounced kink is seen in the upper ureter, not adjacent to the renal pelvis, at a point where the ovarian vessels cross obliquely. Just below this region the ureter frequently swings lateralward, carried to this position by intimate contact with parietal peritoneum as the uterus enlarges. In the normal, these distortions resolve rather remarkably within three months after delivery.

The histological picture of the upper urinary segments is not nearly so dramatic as the gross changes just mentioned. The renal cortex shows nothing unusual except increased vascularity. The renal pelvis appears thin with muscle bundles separated, a change similar to that which is evident in the ureter above the brim of the bony pelvis. Either there is not time for compensatory hypertrophy or other factors are at work which produce a hypotonic type of tissue. In the lower ureter near the bladder, hypertrophy of the muscle bundles and fibrous tissue of the peri-

Dr. Prather is urologist, Boston Lying-in Hospital, Boston, Massachusetts.
Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, September 20, 1950, at Detroit, Michigan.



Fig. 2. Intravenous urogram during pregnancy, breech position. There is unilateral dilatation of calyces, pelvis and upper ureter—not unusual in normal pregnancy.



Fig. 3. Intravenous urogram during normal pregnancy. There are minimal but definite changes in the upper ureters and a right hydronephrosis. The redundancy at the right ureteropelvic junction is not unusual.



Fig. 4. Intravenous pyelogram during pregnancy. Lateral diversion of upper and mid-ureters is common and considered normal.

ureteral sheath occurs, but this finding is not believed to be the cause of the dilatation of the upper ureter.

Having described the evident physiological variations in the upper urinary tract, one would like to assign some cause to them if possible. Long before the days when certain humoral substances were known as hormones, the upper urinary tract dilatation was explained by the mechanical pressure of the enlarged uterus on the ureters at the brim of the true bony pelvis. The dextro-rotation of the uterus and the protection of the left ureter by the sigmoid sufficed to account for more frequent changes of the right ureter and kidney than the left.

However, the realization that relaxation of smooth muscle as part of the physiology of pregnancy might pertain to the upper urinary tract led to studies of ureteral tone and peristalsis. All of the pertinent contributions cannot be mentioned here, but Trout and McLane's noteworthy work demonstrated that ureteral motility is somewhat diminished in both frequency and amplitude as early as the third month of pregnancy, too early for the uterine mass to exert significant pressure on the ureters. This state of diminished ureteral tone and less frequent peristalsis reaches a maximum point in the seventh month and can be explained on a hormonal-chemical basis.

Ingenious studies by Jenkins and Van Wagenen have shown that dilatation of the upper urinary tract in pregnant Rhesus monkeys continues after removal of the fetus by hysterotomy, thus leaving the placenta in place to be expelled at term. Further observations by them have demonstrated that, in monkeys, placental hormones continue active after death or surgical removal of the fetus. They believe that these hormones contribute to the characteristic dilatation of the upper urinary tract, although unfortunately the state of the ureter in the pregnant and non-pregnant monkey could not be influenced by the experimental use of estrogen or progesterone.

To summarize the present concept of the cause of the hydronephrosis of pregnancy, one can say that there is evidence of a placental hormone whose influence produces atonicity of the renal pelvis and upper ureter and that this change is augmented by pressure of the enlarged uterus on the ureters as they cross the brim of the bony pelvis.

Fortunately, the anatomical changes described above do not appear to have any adverse effect on renal function as measured by urea clearance, urine concentration, color dye excretion tests or blood chemistry. Therefore, when renal function is diminished, it is indicative of pre-existing disease or an acute pathological process which has affected both kidneys.

With some knowledge of the physiological changes in the upper urinary tract as they occur in pregnancy, one can proceed to the study and

treatment of urological symptoms or abnormal urinary findings as seen in obstetrical patients.

Not infrequently during pregnancy a patient describes flank pain which is severe enough to require medical aid. Assuming that there is no rise in temperature, that there is no leukocytosis and that the catheter specimen shows nothing abnormal in the centrifuged sediment, what procedures should be considered for diagnosis and for symptomatic relief?

An intravenous pyelogram will provide some clue in disclosing opaque shadows which may be calculi or calcified mesenteric glands, a soft tissue shadow suggestive of ovarian cyst, abnormal size or position of a kidney, or delayed secretion by a kidney indicating unusual obstruction. At times it is difficult to distinguish between the physiological changes already described and a truly obstructive situation giving rise to renal pain, but with the pyelographic films at hand the doctor can speak with reasonable confidence regarding the condition of the kidney on the painful side. If it is believed that the patient's pain is caused by distention of the renal pelvis, but not by a pathological process, postural drainage with the foot of the bed elevated in combination with sedatives usually suffices. Although discomfort may last for a period of days and is at times recurrent, I have never seen a patient who required prolonged treatment.

Gross hematuria is a symptom which is not uncommon during pregnancy. One immediately recalls conditions such as stone, trauma, tuberculosis, tumor, varicosities or infection as possible causes. At times all of these diseases can be ruled out and the cause remains obscure. Calculi usually cause gross hematuria less frequently during pregnancy than in the non-pregnant, perhaps because there is more room in the dilated upper urinary tract. I have seen only two cases of bladder tumor during pregnancy and no renal tumors. Tuberculosis is not uncommon in the age group with which we are concerned and merits consideration. Varicosities of the bladder base are visualized frequently by cystoscopy, but their presence does not rule out hemorrhage of renal origin. Cystitis of the hemorrhagic type with red splotches evident in the bladder mucous membrane, common in all age groups, usually produces intense bladder distress. Gross hematuria from a kidney as visualized by a bloody jet from a ureteral orifice in the presence of a normal pyelogram leaves the urologist with an amazed expression and at a loss for authoritative words. Fortunately, in this circumstance the symptom is usually temporary and not prone to recurrence. Pyelonephritis, as well as acute nephritis, can cause gross hematuria.

We believe each case of hematuria warrants study which includes urine culture, stained urine sediment, culture or guinea pig investigation for tuberculosis, intravenous urograms and bladder cystoscopy. Retrograde study is advised if the intravenous urograms are not satisfactory. In unusual circumstances the aid of the hematologist must be sought.

Pyuria or bacteriuria are common observations during pregnancy if one takes the time to do more than the routine albumin and sugar tests on catheterized urine specimens. It is needless to repeat that a catheter specimen is the only reliable sample for microscopic examination. We might consider two general groups of patients with evidence of urinary infection in the catheterized specimen.

First, we may discuss the patient who is afebrile with no bladder symptoms and who is not aware of any abnormality. If there is no previous history of pyelitis or other renal disability, the logical procedure might well involve routine medication with one of the sulfonamide or antibiotic preparations, checking on the catheter specimen by microscopic examination during the period of medicinal treatment as well as two to four weeks after treatment is completed. If the urine becomes and remains negative, no further studies should be required. However, should the urine fail to clear or become infected again after medication has been stopped, anatomical studies by intravenous urography should be done. Further efforts to clear the urine by means of aureomycin or chloromycetin would be in order hoping to prevent a possible febrile episode later in pregnancy.

We advise routine intravenous urograms in any patient with a previous history of renal disorder and with an infected urine, even though the patient may have no symptoms during her pregnancy. In order to estimate the renal situation accurately one must have the benefit of indirect visualization of the kidneys and ureters by x-ray study.

In the second group of patients with pyuria is the woman with acute febrile pyelonephritis during pregnancy, a complication having an in-

cidence of 2 per cent in most large obstetrical hospitals. Bacterial surveys have shown that E. coli is the most common organism responsible for the infection, but even so, routine urine cultures are advisable in hospital practice in addition to the observations of the wet urinary sediment and the stained sediment.

Prior to the days of potent urinary antiseptic medication, the natural history of repeated attacks of pyelonephritis or continued renal infection became evident in histological studies obtained by surgical biopsy or post-mortem examination. Studies by Weiss and Parker some years ago revealed that the inflammatory process involves not only the tubules and interstitial tissue but the arterioles as well. The kidney can survive an acute attack nicely unless there is urinary obstruction, but with repeated or continued infection destruction of vital elements leads to insufficiency. Studies by Prather and Sewall revealed that patients with pyelonephritis in one pregnancy did not commonly develop toxemia in succeeding pregnancies. With these data, we as physicians have a real obligation to individuals with renal infection. We should know as much as possible about the anatomical status of the kidneys in order not to overlook a significantly obstructive lesion, and we need to employ proper medication, making sure of its effect not by statements of the patient or by improvement on the temperature chart but by frequent examinations of the catheterized specimen.

The symptoms of pyelonephritis are well known to all of you. In the pregnant patient, a chill or an abrupt rise in temperature is the most frequent initial symptom. Flank pain or tenderness is often present but not always as marked as the febrile reaction might indicate. A toxic reaction with nausea and vomiting is common. Rarely do bladder symptoms give a clue pointing to the urinary tract as the source of the fever.

The diagnosis rests of course with the presence of bacteria in the urine specimen during the first few hours of the infection, followed shortly by pyuria unless there is complete obstruction of the affected kidney.

Treatment of pyelonephritis in pregnancy requires attention to hydration—intravenous fluids when the patient is unable to take 3000 c.c. per day by mouth. Postural treatment with the foot of the bed elevated and sedatives may be required if flank pain is troublesome.

The stasis of urine, evident with the physiological hydronephrosis, creates a real proving ground for any drug that hopes to qualify as a so-called urinary antiseptic. Prior to the days of sulfanilamide no known medication would produce a sterile urine in pyelonephritis of pregnancy. With the original sulfa drug we found that 68 per cent of patients were cured, which by definition we mean obtained a sterile urine during medication and which remained sterile during the remainder of pregnancy. About 20 per cent obtained a sterile urine during medication but developed an afebrile pyuria after medication was stopped, while 12 per cent did not improve their urinary sediment during sulfanilamide therapy.

At the Boston Lying-in Hospital experience with sulfadiazine closely parallels the results with the other sulfonamides. The usual program is 1 gram four times a day for five or seven days. With the hydration program mentioned previously there has been no complication of crystalline obstruction or toxic reaction in the renal cortex causing anuria.

In coccus infections one naturally turns to penicillin, but I do not sanction the routine use of this drug in urinary infection.

Data are not available at this time to judge the efficacy of the newer antibiotics, such as, aureomycin, chloromycetin, and terramycin in a large series. Suffice to say at the moment that they appear to be at least as effective as sulfonamides, but scattered failures in sterilizing the urine of pregnant patients prevent one from assuming that all will be cured. We have employed 250 or 500 milligrams of aureomycin or chloromycetin four times a day.

The necessity for cystoscopic drainage and irrigation of the infected kidney in pregnancy has become much less frequent in recent years. It is employed at present only when lack of progress by medical treatment is evident or when calculi or other obstructions inhibit effectiveness of the oral medication.

By the same token surgical interference is limited to the case with pre-existing renal disease which has become aggravated by pregnancy, thus producing a dangerous situation for the welfare of the patient.

Interruption of pregnancy is rarely necessary today for pyelonephritis but may be advised if total renal function appears deficient.

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Pain Relief During Labor

By Norman F. Miller, M.D.
Ann Arbor, Michigan

PAIN RELIEF is today one of the more popular subjects for discussion amongst those who practice obstetrics and, perhaps, justly so. To relieve human suffering is an important part of our responsibility as physicians. Much of the discussion stems from the fact that we have no entirely satisfactory, practical, universally acceptable system for pain relief. Discussion of this subject is, therefore, desirable, since it tends to clarify understanding and iron out the numerous problems connected with the use of pain-relief methods.

It hardly seems necessary to raise the question, "Do women have pain during labor?" The answer is so obvious as to seemingly merit little comment; yet, no consideration of pain relief would be complete without some mention of this aspect of the subject. Few people are bold enough to hold that the average woman does not have pain during labor. Some individuals, however, believe that labor amongst primitive women was not associated with pain, and that labor pain is a more recent acquisition in the evolution of womankind based on our way of living and based on fear. Without intending to be facetious I believe few of us are sufficiently familiar with primitive mankind or with the actual discomforts tolerated by women during the birth process to accurately evaluate these points. However, we do know that whatever its cause—whether fear or muscle stretching—modern woman can be mighty uncomfortable during the birth process, and our every inclination is to endeavor to give surcease—relief with safety.

It has been said that a mother who gives birth to her child in pain is emotionally better off than those whose discomfort, and even consciousness, has been blocked out during travail. Statements of this sort emanating from the male sex may be taken with a grain of salt. However, some women have also expressed this view; consequently, it behooves us to give this matter careful consideration.

The effect of fear upon bodily function should be well known. The effect of fear on emotional equanimity and stability should likewise be common knowledge for medical people. Yet it sometimes appears that this influential relationship, if truly known, is either commonly overlooked or ignored in the management of obstetric patients. There is, indeed, abundant reason to indicate that for the vast majority of pregnant women modern medical care—good as it is—fails to fully or adequately utilize opportunity for minimizing fear—especially that under the surface, not talked about kind of concern—fear—felt by most women approaching term. Fear of the unknown is common amongst mortals. Fear of travail is no exception. Lull and Hingson reported 4000 women willing to consider pregnancy and labor if assured they would have no pain. Two thousand para I women were reluctant to consider another pregnancy unless promised protection against pain, and this represents only a single observation. How many more women secretly harbor similar thoughts can never be known but may be guessed at by the fact that many women are more concerned about analgesia and anesthesia than about obstetrical care. Indeed, in spite of apparent interest in so-called natural childbirth today many women pick their obstetrician or hospital on the basis of type of pain relief offered. Adequate emotional preparation of the patient then becomes an important fundamental part of pain control during labor. Because this is so, it is imperative that we determine how this may best be accomplished. Briefly the following steps are important.

1. Individual or group discussions preferably beginning about the fourth or fifth month of gestation (time of quickening) on what pregnancy and labor are all about.

2. Introduction and instruction as to hospital, environmental surroundings, time factors in labor, duration, as well as subjective manifestations, of labor.

3. If the husband can attend these instruction periods, it is likely to help matters considerably.

4. If hospital care is planned, do not have the patient come to hospital in questionable labor sooner than necessary. A long hospitalization during the prodromal stage of labor can be both fatiguing and disconcerting.

5. The physician whom the patient has engaged for obstetric care should *himself* see and evaluate the patient's condition once labor has really begun. These evaluation visits should never be hasty, but thorough and as frequent as necessary for any given patient.

Much more could be said about each of these points but for purposes of this brief discussion they can only be mentioned.

Having received unhurried care and attention

From the Department of Obstetrics and Gynecology, University of Michigan Hospital, Ann Arbor, Michigan.

along the lines indicated above, one may be certain that the average normal woman will be no problem during the early stage of labor—either to herself or to the physician. One may be equally certain, however, that with progress and gradual dilatation of the cervix there comes a time when the average patient will welcome assistance to the extent of having the "sting" removed from the contractions. Obviously this time will vary considerably but is commonly noted at 3 to 5 cm. in primiparas and 5 to 7 cm. in multiparas. Again let me say that this is subject to a good deal of variation.

Accepting the fact that the patient is now actively in labor in the dilating stage—and uncomfortable—we are faced with the necessity for making two decisions: (1) shall we now resort to pain-relief measures, and (2) what shall we use?

The answer to the first question is easy. Those of us who have lived through a long period of medical practice would not care to return to the day when it was possible to learn much about the patient's status—even before entering the home or hospital—by the character of her outbursts. That type of delivery care was worrisome, wearisome and tough on the heart strings, but perhaps even harder on the patient. Points in its favor were the less frequent operative delivery and a seldom asphyxiated infant. Though generally safe, the early analgesia-less delivery care was not always so devoid of obstetrical trauma as has been commonly thought. Under duress of the moment patients were frequently prematurely urged to bear down, with resulting trauma—to cervix, vagina and perineum—of a kind we seldom see today. Furthermore, no one has yet satisfactorily evaluated emotional trauma of either the anesthesia-less confinement or present day pain-controlled labor.

Some obstetricians and many hospitals have developed pain relief in labor to the point where one may well inquire whether we have now reached the stage in our civilization where having a baby *without* pain control is about as obsolete as having an operation without anesthesia. Are we ready for obstetrical anesthesiologists? If the answer be yes, then anything short of complete pain relief during the entire birth process must be looked upon as inadequate. The answer to this question will obviously shape our plans for obstetrical pain relief. While the thought is intriguing, there are many reasons why we may be certain the world has not yet reached such a millennium. A few reasons will suffice to clear the atmosphere on this point. (1) There is no such unanimity of opinion. Many, like Grantly Dick Read and his followers, hold a contrary view. (2) Many, perhaps one-half, of the babes are born at home. (3) Such a comprehensive program for obstetrical analgesia and anesthesia is as yet impractical. Any program for obstetrical pain relief then must fulfill certain requirements. Briefly, these may be stated as follows:

1. It must be safe for mother and child.
2. It must not interfere with the progress of labor.
3. It must adequately relieve suffering.
4. It should be practical.
5. It should not complicate labor and delivery by making the patient unduly restless or uncontrollable.

Since this is a practical problem the choice of drugs and technique is largely determined by such things as:

1. Place of delivery—home or hospital.
2. Availability and skill of attending physician.
3. Availability and skill of medical assistance (residents and nurses).
4. Parity of the patient.
5. Progress of labor.

All types of pain relief call for close supervision and the degree to which this can be given must influence the program for pain relief to be followed.

While we have devoted a fair portion of this discussion to generalization, I believe the points so far covered to be fundamental and an essential preliminary to any consideration of this subject.

It must be clear that the multiplicity of techniques available demonstrates convincingly that no one drug or technique is universally suitable or without drawback. Furthermore, the drugs which have been tried are so numerous that any attempt to consider them all at this time could only mean sketchy repetition of much that has already been published. Perforce then, we shall limit these remarks to consideration of a program for pain relief during labor, which, though flexible enough to meet varying practical restrictions, is nonetheless safe and reasonably adequate. Failure to mention certain drugs and techniques does not necessarily imply their undesirability. It is more likely to mean that in the program here outlined

our preference is for the drugs indicated. Finally, before outlining a suggested program, let me say that any plan for pain relief should be flexible enough to best meet the requirements of a given patient, and pain control by telephone is likely to be a poor substitute for relief under direct observation.

Here is the program we use:

1. *Prodromal Stage* (not certain patient is in labor).—Give reassurance. Stay at home and, if primipara and early at night, give one of the barbiturates such as Nembutal, grains iss to iii. If multipara, better come to hospital.

2. *Early Dilating Stage.*—Admit to hospital if patient is to be hospitalized. If primipara, careful examination and reassurance. At this time a simple explanation of what is taking place and what may be expected is both reassuring and appreciated by most patients. If at night, one of the shorter acting barbiturates such as Seconal, gr. iss to iii. If multipara, careful evaluation, reassurance, sedation. In primipara—when cervix is 3 to 5 cm. and patient actively in labor—arrange for darkening of room and quiet. However, some patients do better with diversion—music, reading, or visiting with husband. Tell patient what she may expect—not complete pain relief but removal of "sting" from contraction. May give Demerol 100 mg. intramuscularly with, or without, Scopolamine, grains 1/200 to 1/150. Demerol and Scopolamine may be repeated after a few hours. Patient to be carefully watched. Slower moving multiparas who are dilated only a few centimeters and uncomfortable may be managed in same way but watch for "sneak delivery."

When cervix is 8 to 10 cm. in primipara (6 to 7 cm. in multipara) with patient in hospital and competent assistance available, regional analgesia (either saddle block or caudal) may be started. Since anyone using low spinal (saddle block) or caudal should be properly prepared by study and training, no attempt is made here to describe technique in detail. Reference is made to Lull and Hingson's book on *Control of Pain in Childbirth* and to a description of the original technique by Adriani and Parmley in *Southern Medical Journal,* 39:191, 1946, or to a report by Andros and Priddle on experience with "saddle block" anesthesia at the Chicago Lying-In Hospital.

In our own clinic both caudal and low spinal have a useful place. During the past few years caudal or low spinal has been administered to over 5,000 patients. The quicker acting, shorter duration, low spinal (saddle block) has given satisfactory results, especially in multiparous patients. For primiparas, where more prolonged analgesia is desirable, the use of caudal technique has rendered acceptable relief from pain. Every patient managed by either one of these techniques should be in a hospital and under constant supervision of trained personnal. When fully understood and properly used, regional anesthesia of the types mentioned, especially when combined with preliminary sedation during the early stage of labor, offers the most complete and in some ways the most satisfying means of pain control during labor. In general, the low spinal technique used by us represents the original Adriani, Parmley technique as modified by Dr. George Andros. The caudal technique is that of Hingson and Edwards, as described in Lull and Hingson's book on *Control of Pain in Childbirth.*

It is well to keep in mind the contraindications to the use of regional anesthesia. Briefly these may be listed as follows:

1. Patients not in a hospital or in a hospital lacking trained personnel.
2. Some high strung, nervous individuals, including patients who fear the "needle."
3. Patients with marked hypotension.
4. Cephalopelvic disproportion.
5. Placenta previa.
6. Premature separation.
7. Version and extraction for single fetus.
8. Active central nervous system disease of any kind.
9. Patients with history of migraine headaches.
10. Any patient where there exists doubt concerning the desirability of using regional anesthesia.

Since all patients are not suitable candidates for regional block, we return once again to the use of such oldtime standbys as ether, nitrous oxide-oxygen, or ethylene, for the terminal phase of labor. While these inhalants leave much to be desired, it should never be forgotten that they have brought comfort and solace to millions of women during labor. Remember, too, they are still good enough to be used regularly in all surgical fields and cannot yet, therefore, be labeled obsolete. Unless the complete requirements for the use of regional anesthesia can be met, we may without hesitation, and with a high degree of

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The Present Status of the Problem of Syphilis

By Louis A. Brunsting, M.D.
Rochester, Minnesota

THE INTRODUCTION of penicillin has revolutionized the management of syphilis in less than a decade. Little did Mahoney, Arnold and Harris[2] realize, when they demonstrated in 1943 that penicillin had treponemicidal effects on early syphilis in man, that repercussions would be felt so quickly and that penicillin would contribute so materially to reducing the incidence of the disease. Experts are now generally agreed, in this country at least, that, with rare exceptions, penicillin is entirely adequate to cope with all phases of syphilis from chancre to paresis.

Decline in Incidence of Syphilis

Statistical reports[1,4,5] indicate a definite decline in the incidence of syphilis in this country, especially in early syphilis, since the postwar peak of 1947. This decline is not uniform in all the states, the incidence reflecting the socio-economic status of the area. The United States Public Health Service report showed that in 1947 there were 373,296 cases of syphilis reported; in 1949, there were 288,640. The number of instances of early syphilis discovered indicates the trend of the disease, even though it is estimated that half such cases are missed until the later stages of the disease, if they are found at all. Cases of early syphilis reported from Georgia in 1947 numbered 3,829; in 1949, 2,649. From Massachusetts in 1947, 903; in 1949, 337. From Minnesota, a low-prevalence area, only sixty-nine cases of acute syphilis were reported in 1949. In the larger cities of the country the same diminishing trend is evident. In Detroit, only 52 cases of early syphilis were reported in the first three months of 1950; in 1946, in the first three months, there were 545 cases. In Chicago, Ann Arbor and elsewhere, rapid intensive treatment centers have been discontinued, partly because of a decrease in case load, partly because of budget economies of local and federal governments. Paradoxically, there has been no decrease in the past five years in the number of cases reported of congenital syphilis in the United States, the range being from 12,000 to 14,000 cases annually, with an actual increase during the past two years. In part, this increase may be explained on the basis of more intensive efforts at case-finding in screening surveys in neglected areas; in part, this may be an aftermath of the increased incidence of early syphilis during the war years, many instances of which were not recognized or perhaps received inadequate treatment and relapsed.

Penicillin does not deserve the whole credit for the diminishing incidence of syphilis in recent years, for the same decline has been noted in postwar years in certain foreign countries where penicillin was not generally available. In the United States the mortality rate of syphilis has been halved in the decade 1938 to 1948. There has been a steady decline in deaths from cardiovascular syphilis and general paresis, in the latter instance since the introduction of malaria therapy in 1923.

The crux of the situation in the control of syphilis is to discover the patient who has syphilis and, of course, the earlier the better. Campaigns of public education and the use of screening surveys of the population have merit, but we should expend more effort in the training of medical students and younger practitioners of medicine in the fundamental aspects of syphilis and teach them to think of syphilis in dealing with their patients so that they will make more liberal use of available laboratory facilities. It is estimated that about a third of the patients with early syphilis that is recognized are under the care of private practitioners. Too often such patients are not reported to health authorities for fear of disclosure. Records indicate that physicians are notoriously remiss in checking the contacts of private patients who have early syphilis, and to that extent they are guilty of abetting a crime.

Treatment of Syphilis with Penicillin

Once the diagnosis of syphilis has been made and treatment is found necessary, penicillin is the agent of choice. I say "and treatment is found necessary," because of the widespread tendency to treat results of the patient's serologic tests rather than the patient himself. In the case of individuals with latent syphilis who have had adequate treatment previously, and especially in the elderly, there is nothing to be gained by

Read at the Eighty-fifth Annual Session of the Michigan State Medical Society, Detroit, Michigan, September 22, 1950.
From the Section on Dermatology and Syphilology, Mayo Clinic.

pressing the issue solely because of seroresistance. Time is a great healer. We must not lose sight of the fact that the patient who has late latent syphilis, even when untreated, stands a three-to-one chance of living his normal expectancy without the development of serious complications of the disease.

Physicians have a choice of types of penicillin to be used; repository forms are in favor because of convenience and economy in permitting the patient to remain ambulatory. Procaine penicillin G in aqueous suspension is the preparation of choice at present, and probably will supplant all other forms. Newer antibiotic agents, such as aureomycin and chloramphenicol, eventually may replace penicillin in the treatment of certain phases of the disease, but for the present their use should be confined to conditions under experimental control. Of the older forms of treatment, bismuth finds some usefulness in selected cases, but it is the consensus of most experts that the arsphenamines are obsolete.

The chief advantage of penicillin in the management of early syphilis, aside from the insignificant cost of the drug, the fact that it is nontoxic and the fact that by the use of repository preparations patients may be ambulatory, is that more than 95 per cent of the patients receive an adequate amount of treatment. In the old days, with long schedules of arsphenamine and bismuth given over a period of two years, less than 30 per cent of this group finished the minimal requirements of adequate treatment. Furthermore, when penicillin is used, the danger of neurosyphilis is practically abolished, a feature which is bound to have far-reaching significance in the future trends toward the development of tabes dorsalis and paresis.

In the discussion of particulars of treatment, I shall emphasize those phases of syphilis which are most common and represent the chief problems of the general practitioner, and shall leave the controversial issues to the consideration of authorities in this field.

Early Syphilis.—This includes primary syphilis, both seronegative and seropositive, secondary syphilis and early latent syphilis during the first four years of the infection. In general, it is the custom, except in the face of obvious signs of congenital syphilis, to include in this group all patients under the age of thirty years who are found to have latent syphilis. The remarkable results of penicillin in the treatment of syphilis are most vividly expressed in the high percentage of cures that are obtained in the treatment of early syphilis. In the primary seronegative phase, the results are practically perfect. The older the disease, the higher is the percentage of serologic and clinical relapse, ranging from 10 to 20 per cent of patients treated in the late secondary phase, which emphasizes the need for constant vigilance in the follow-up of such patients and the use of quantitative procedures for serologic testing at frequent intervals. The cerebrospinal fluid should be examined early and again before the patient is considered cured.

Ideal schedules of treatment within certain limits still are more or less arbitrary. In urban centers with a floating population, it may be wise to give large initial doses so that if patients lapse from treatment, there will be less chance of relapse of the disease. In general, in the group of patients who have early syphilis, it will be safe to give 600,000 units of penicillin (procaine penicillin G in aqueous suspension) by intramuscular injection daily for fifteen consecutive days. In the secondary stage and in the relapsing stages, when retreatment is needed, the total dose should be larger. The addition of arsphenamines or bismuth to such schedules does not contribute to the effectiveness of therapy.

An interesting development has been the prophylactic treatment with penicillin of persons who have had contact with patients with infectious syphilis, even though examination shows no signs of the disease. Early reports indicate that the incidence of syphilis developing in such contacts has been reduced from a range of 25 to 60 per cent in the untreated, to 4 per cent among those given treatment.

Late Latent Syphilis.—The diagnosis, latent syphilis, assumes that the patient shows only serologic evidence of the disease in the blood, that the cerebrospinal fluid is normal and that there is no evidence of cardiovascular or other visceral involvement. The question of a biologic false positive reaction must be settled in every instance before treatment is begun. It is important to discuss thoroughly the nature of the problem with the patient before treatment and to decide in each case whether treatment is necessary, to emphasize that serologic reversal is not the chief

aim of the treatment and that such changes may require five years or more to become apparent. If this is not done, such patients will become syphilophobic and will interpret every slight symptom—sore throat, aching muscles, headache and so forth—in terms of syphilis.

The average patient who has late latent syphilis will receive adequate protection from one course of penicillin, 6,000,000 units given over a period of twenty days. Periodic physical examinations at yearly intervals thereafter should be the rule.

Syphilis in Pregnancy.—Penicillin therapy administered to pregnant syphilitic women is practically 100 per cent effective in preventing congenital syphilis, even when treatment is given in the third trimester or near term. By older methods, not considering the toxic reactions and those who lapsed from treatment, there was a failure rate twice that associated with the use of penicillin when treatment was given before the fifth month of pregnancy, and six times higher than that accompanying the use of penicillin when treatment was not instituted until late in pregnancy. It is important to remember that infectious syphilis in pregnant women who are treated with penicillin early in the course of pregnancy may relapse, or reinfection may develop before term. Periodic re-examinations at monthly intervals should be maintained in such cases.

Experience in the Detroit Clinics indicates that pregnant women who have received adequate treatment for syphilis before pregnancy may be safely permitted to carry on without additional treatment and with no hazard to the child. The percentage of stillbirths and other accidents of pregnancy is no higher in penicillin-treated pregnant women with syphilis than in members of control groups without syphilis. Pregnant mothers with syphilis should receive a minimum of 4,000,000 units of penicillin, and perhaps more. I would suggest the use of 600,000 units daily for ten consecutive days.

Congenital Syphilis.—Penicillin likewise is effective in the treatment of congenital syphilis, the incidence of good results being significantly better among children treated before the age of six months than among those treated later. It is not necessary to review the clinical signs of congenital syphilis, except to emphasize a few points when diagnosis is made on serologic evidence alone. Serologic examination of the cord blood at the time of delivery is of practically no value in clearing up the issue of syphilis in the mother or in the child, and a diagnosis never should be made on this basis alone. It is possible for syphilitic reagin to pass through the placenta from the mother to the child without infection of the child being accomplished. Unless there are actual signs of congenital syphilis, a positive result of a serologic test of the child within the first few weeks after birth should cause the test to be repeated one month later and again after another month, and if the quantity of the titer diminishes, treatment should be withheld. On the other hand, if the mother has active syphilis, untreated, and the serologic reaction of the child shows a significant positive reaction, there is less harm in giving the child treatment with penicillin as a prophylactic measure than was formerly the case when the older and more ineffective measures of treatment were the only procedures at our command.

The dose of penicillin in the treatment of congenital syphilis is usually judged by the body weight of the child, and should consist of 100,000 units of penicillin per kilogram of weight, given over a period of fourteen to twenty-one days.

Penicillin alone is ineffective in the control of congenital syphilis with interstitial keratitis. In such cases ophthalmologic consultation is essential, and supplemental measures of treatment, such as fever, should be administered before there has been permanent damage to the eyes. Recent observations indicate that the use of cortisone and ACTH may help to control the inflammatory phase of acute interstitial keratitis; these promising results at present are being explored.

Late Benign Syphilis.—Adequate treatment of syphilis in the early or latent stages will prevent the development of the visceral complications of the disease. Gummatous lesions of vital structures, the liver, brain and stomach, are relatively rare; at present, few patients with the familiar nodulo-ulcerative syphiloderm reach university clinics or other diagnostic centers without having received the ubiquitous penicillin elsewhere, and there is a paucity of such material for teaching purposes. The response of such lesions to penicillin is dramatic, although positive serologic reactions may persist in the blood for years. Patients who

have late benign syphilis may be given an initial course of penicillin until a total of 4,800,000 to 6,000,000 units has been reached, and then may be placed on observation as is done in the case of late latent syphilis.

Cardiovascular Syphilis.—The diagnosis of uncomplicated syphilitic aortitis puzzles the expert cardiologist. It is rarely justified on the basis of clinical evidence alone, according to my medical colleagues. In the presence of aortic insufficiency or aneurysm, and especially in the face of decompensation, emphasis should be on maintaining cardiac reserve by conventional methods rather than to turn first of all to measures of specific treatment for syphilis. Penicillin may be given in such cases without fear of untoward reaction; schedules of dosage at present are entirely arbitrary, and the results of treatment must be calculated in terms of years. A decline in the death rate from cardiac syphilis occurred long before the introduction of penicillin.

Neurosyphilis.—Syphilis of the nervous system can be prevented. Tabes dorsalis and general paresis are the development of an asymptomatic process laid down in the nervous system during the early infectious stages of the disease, ten to twenty years before clinical signs of damage to cord and brain become apparent. It was estimated five years ago that it costs $11,000,000 a year to support paretic persons in mental hospitals in this country, and $4,000,000 a year to support the syphilitic blind, not to mention the tremendous loss of income sustained by these disabled persons. Neurosyphilis will never be abolished so long as there is a vast reservoir of candidates provided by the thousands whose syphilis is unrecognized and untreated in the early stages of the disease.

On the other hand, a number of factors have been working toward the reduction in incidence of the late phases of neurosyphilis, and this trend may be expected to increase considerably in decades to come. Today, the incidence of neurosyphilis in penicillin-treated patients with early syphilis is almost negligible, and case-holding is excellent, in contrast to the arsphenamine-bismuth era, when so few patients finished minimal therapeutic requirements. Also, the alert physician is making more use of diagnostic lumbar puncture in appraising apparently late benign syphilis before treatment. Even unrecognized asymptomatic neurosyphilis is bound to benefit by the widespread use of penicillin, whether directed blindly to a patient who has a persistently positive reaction to a serologic blood test for syphilis or employed in the treatment of some intercurrent infection for which the use of penicillin seems indicated.

Before discussing the treatment of neurosyphilis, I should like to discuss examination of the cerebrospinal fluid. It is trite to remark that every patient with syphilis should have an examination of the cerebrospinal fluid, preferably before treatment, or early in the course of treatment, in order to establish a base line and as a guide to prognosis and treatment. Abnormal findings in the cerebrospinal fluid, even without the presence of clinical signs of neurosyphilis, call for a much more intensive program of treatment and follow-up than when the disease is uncomplicated. Examination of the cerebrospinal fluid should be omitted in cases in which another medical problem is paramount, such as bleeding peptic ulcer, a malignant lesion or advanced cardiovascular disease, or when the patient is more than sixty years of age and the history of syphilis dates back twenty-five or thirty years, unless a puzzling diagnostic problem or signs and symptoms indicating active parenchymatous neurosyphilis are present. The examination in question should be postponed during a patient's pregnancy.

In examination of the cerebrospinal fluid, the features to be emphasized are the cell count, the total protein, the serologic reaction and the colloidal-gold curve. The most important of these is the cell count, done on a fresh, not a mailed, specimen. If the cell count is normal and the content of total protein is less than 50 to 60 mg. per 100 c.c., it may be assumed that there is no activity in the nervous system.

In the treatment of neurosyphilis, fever has been largely superseded by penicillin. The appraisal of therapeutic results in neurosyphilis is a long-term affair and requires more than the five years that have passed since penicillin was introduced. However, the statistics available indicate that except in the case of general paresis, the combination of penicillin plus fever has no advantage over the use of penicillin alone in adequate doses, and in the latter case, the risk of fever therapy is eliminated. Malaria and other forms of fever are now

generally reserved for those patients with active paresis or those whose syphilis is resistant to penicillin or has relapsed, or who are penicillin-sensitive. The use of newer antibiotics, such as aureomycin and chloramphenicol, is being explored; early reports indicate that they are effective in the control of syphilis. If they eventually establish themselves, they may simplify the problem of treatment still further, for they may be administered orally and are relatively nontoxic.

The exact schedule of dosage for the treatment of neurosyphilis by penicillin is not yet established; generally a larger dose than average should be administered over a longer period. The danger of occurrence of a Herxheimer reaction is insignificant. For patients previously untreated, and in asymptomatic and meningovascular neurosyphilis, the first course should comprise a total of 9,000,000 units administered in a period of twenty-one days. In the presence of tabes or paresis, the dose should be larger: 10,000,000 to 15,000,000 units. Progress is determined by the clinical response and by the record of changes in the cerebrospinal fluid, which is examined at intervals of four to six months. Decisions regarding details of treatment and the management of complications of neurosyphilis comprise a chapter in themselves. Treatment should not be continued indefinitely. When the disease has produced structural damage to the nervous system, the changes are irreversible.

Reactions to Penicillin

Local reactions at the site of intramuscular injections occasionally occur, but they are infrequent when aqueous suspensions of procaine penicillin G are substituted for the older oil-in-wax preparations. Vesicular dermatitis may appear in the course of the lighting-up of a previous fungous infection of the skin on the feet, groin or hands; sites previously sensitized by topical applications of penicillin to the skin will flare after the intramuscular injection of penicillin. Usually these reactions are mild, but occasionally they lead to universal exfoliative dermatitis.

The most common reaction to penicillin is urticaria, which generally appears seven to ten days after the initial injection and may assume all the qualities of serum sickness, with angioneurotic edema, fever and pains in the joints. The symptoms may be controlled by the intramuscular injection of ACTH (adrenocorticotropic hormone) or cortisone for a few days. Antihistaminic drugs as a rule are ineffective. In most patients, treatment with penicillin may be continued without interruption. In cases of extreme sensitivity, other antibiotic agents, such as aureomycin, may be substituted.

Research in Syphilis

Virulent Treponema pallidum has not yet been grown in pure culture, although viable organisms can be maintained for some time under special anaerobic conditions. The electron microscope has resolved to some extent the pattern of the organism in respect to cell membrane, flagella and buds. Studies with phase microscopy and with special staining techniques indicate that Treponema pallidum has a complicated life cycle, with reproduction occurring by transverse division and by the production of gemmae or buds. Cystic forms become more numerous when conditions of growth no longer are optimal. It is entirely possible that the prediction of Warthin forty years ago, concerning the existence of granular or resting forms of the organism, may be substantiated.

Recent studies in experimental syphilis in rabbits have been devoted to observations on penicillin-resistance under various schedules of treatment, and to the behavior of the pattern of acquired immunity that appears with the passing of time. The reaction of tissues to inoculation with Treponema pallidum varies considerably with the host. In the mouse practically all tissues are resistant, although lymph nodes of infected mice can almost always transmit the infection to other animals. In the rabbit only the testes, eyes, skin and bones react with lesions. In man, no tissue is immune except to a relative degree. This means that the thyroid parenchyma, pancreas, kidney, ovary and body of the uterus usually are spared.

An important contribution to fundamental studies in the biology of syphilis in animals and man is the recent demonstration by Nelson and Mayer[3] of a specific antibody in syphilitic serum which, in the presence of complement, exerts a marked immobilizing influence on Treponema pallidum in vitro. The effect is absent from normal serum and is irregular in the primary stage of syphilis. The antibody is distinct from the syphilitic reagin. The use of the immobiliza-

tion test may be of great practical importance in clearing the issue in cases of so-called biologic false-positive reactions for syphilis, and in the study of immune reactions.

Control of Syphilis

A reasonable degree of optimism is justified when we consider the gains accomplished in the problem of syphilis in less than a decade. There never can be complete control of the disease, however, so long as more than half the instances in the communicable phase are not apprehended until more than a year after the onset of the infection. It is estimated that 3,000,000 persons in this country have a positive reaction to a serologic test for syphilis; the fact that the disease each year maims thousands and infects others innocently is a sobering thought.

In 1936 the activities of the United States Public Health Service were vitalized by Thomas Parran toward the control of venereal disease on a national scale. Throughout the years these efforts have brought dividends in stimulating research, educating the public and in providing financial subsidy and personnel to local and state units to assist in case-finding and to institute facilities for treatment on a wholesale scale. If these energies are curtailed, much of these gains will be lost. There is always an upsurge of the communicable stage of venereal disease during conditions of social unrest that attend mobilization and war. It behooves us as physicians to maintain a constant interest in these matters, so that progress shall not be nullified by shortsighted economies of budget in the field of public health.

Summary

Some of the factors which have contributed in recent years to a decline in the incidence of syphilis are discussed. Even though the magic of penicillin has provided a safe and economical form of treatment, the keynote of control of syphilis is the recognition and care of patients who have early stages of the disease as well as thorough investigation of contacts that have been exposed. It is the responsibility of the physician to consider the possibility of syphilis in every pregnant woman; congenital syphilis can be entirely prevented. Practical points in the diagnosis and management of the various phases of syphilis, of interest to the general practitioner rather than the specialist, are emphasized and optimal schedules of therapy are outlined.

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MSMS

OVERCOMING HEMORRHAGIC PUERPERAL MORTALITY

(Continued from Page 40)

blood, according to the estimate of probable requirements.

In undertaking major surgery, venoclysis should be started before the operation, and necessary quantities of suitable blood should be actually in the operating room, to be quickly substituted at need for the other liquid already flowing into the patient's veins.

If the surgery is performed for actual hemorrhagic emergency, adequate transfusion to insure operability must be administered *before* the operation is performed, and continued during and after operation as the situation demands.

My subject might well be expanded in many important regards. But if doctors will be alert to detect the possibility or actuality of hemorrhagic danger, if they will insist on the provision of adequate organization in their environment for meeting this danger, and will promptly and adequately avail themselves of those facilities, deaths from hemorrhage everywhere will be greatly reduced, and we may come very close to Stallworthy's ideal of no deaths from puerperal hemorrhage.

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Treatment of Eczematous Dermatoses

The Topical Use of an Antihistamine Agent Combined with Chloroiodohydroxyquinoline

By Alex S. Friedlaender, M.D.
and
Sidney Friedlaender, M.D.
Detroit, Michigan

THIS REPORT deals with the combined topical use of two valuable agents in the treatment of eczematous skin eruptions. The effectiveness of chloroiodohydroxyquinoline and pyranisamine maleate, an antihistaminic drug, combined in a bland, non-greasy vehicle* has been striking enough to warrant a summary of the results observed in cases of atopic dermatitis, contact dermatitis and other eczematous eruptions. Each of these drugs prepared alone in a suitable base has proven in our own experience, as well as in that of others,[2,5,7,8] to be valuable local medicaments in dermatologic therapy. The two drugs employed together, however, in many instances in the present study, have been observed to accomplish a more desirable effect than either one alone.

Chloroiodohydroxyquinoline in 2 or 3 per cent concentrations exhibits bacteriostatic and fungustatic properties, and has been widely used in the local treatment of atopic, contact, and seborrheic dermatoses, sycosis barbae, stasis dermatitis, bacterial and mycotic infections of the skin, pruritus ani and vulvae, and psoriasis. Its low sensitization index and relatively non-irritating qualities have given it a position high on the list of effective dermatologic agents. One disadvantage in its use is the tendency to stain the skin and clothing yellow. This is less marked when the drug is combined in a water-miscible rather than an oily base. In the present study, chloroiodohydroxyquinoline was used in a 3 per cent concentration.

The antihistamine agents in the relatively short time since their introduction have earned an important place in the therapeutic regimen of pruritic dermatoses, especially in those cases where allergy plays a significant role. The effectiveness of oral preparations in reducing edema and in alleviating pruritis is well known. Their usefulness in topical therapy has also been recognized, and many of these compounds have been prepared in concentrations of 2 to 5 per cent in both water-miscible and oily bases for the treatment of dermatologic conditions. In addition to the marked ability of these drugs to antagonize the physiologic effects of histamine, they also exhibit strong local anesthetic properties which are to some degree responsible for their effectiveness in pruritic dermatoses. Their ability to penetrate the skin when applied in appropriate vehicles has been demonstrated.[3] There is some laboratory evidence that they may act as fungostatic agents,[1] and certain members of the group are effective sun-screens, hindering the passage of the erythema-producing rays of the spectrum.[4] Pyranisamine maleate, which is dimethylaminoethylmethoxybenzylaminopyridine, is an unusually strong antagonist of histamine, and ranks high among the available antihistamine preparations in point of therapeutic effectiveness, both in the case of oral administration and topical application. Our own experience has shown that a 2 per cent preparation in a water-miscible cream exerts a high degree of antipruritic action with a minimum of irritation when applied to acute, subacute, and chronic eczematous eruptions. This strength of antihistaminic drug was used in the combination under study.

The appropriate vehicle for dermatologic therapy must of necessity vary with the type of condition under treatment. In any case, the base employed must be nonirritating and of a low sensitizing potential. In the local treatment of eczematous eruptions, it has been our impression that medicaments prepared in water-miscible bases are more effective and less irritating than when employed in greasy vehicles. The base used to incorporate the active ingredients under study consisted of a water-washable ethylene glycol stearate dispersion in methoxycellulose gel which in itself appears to exert an emollient action. To overcome the dry, water-repellent properties of chloroiodohydroxyquinoline and to insure thorough contact with the skin, a bland effective wetting agent of the sodium sulfosuccinate type (1 per cent aranol penetrant — C & M) was included in the base. When this preparation resulted in excessive drying, or when the necessity for greater lubrication was apparent, an ointment base was substituted. Occasionally the use of a water-washable cream dur-

*The combination under the trade name of *Quinamine Cream* was supplied for this study by the C & M Pharmacal Co., Detroit, Michigan.

ing the day, and a more lubricating ointment at bedtime was found to be a desirable combination.

Wherever possible, the effectiveness of the various ingredients alone, as well as in combination, was evaluated in the same patient. Sometimes it was possible to accomplish this by treating separate skin areas simultaneously with the various preparations. In other cases, they were used alternately. The cream was used in acute, subacute, and chronic cases two or three times daily. In most instances a program of avoidance of known allergens, and desensitization therapy to specific inhalant allergens was carried out in addition to topical therapy. In the case of acute eruptions, boric compresses or wet dressings of Burow's solution were used, and the combination cream employed between the moist applications, and at bedtime. In subacute and chronic stages, the preparations under study were the sole topical medicaments.

Results

Fifty-seven patients in the following categories were treated with the combination cream (Table I).

Condition Treated	No. of Patients	Improved	Not Improved	Aggravated
Atopic dermatitis				
Adults and older children	32	31	1	0
Infants	9	7	2	0
Contact dermatitis	9	7	0	2
Infectious eczematoid dermatitis	3	3	0	0
Stasis dermatitis	2	2	0	0
Dermatitis herpetiformis	1	0	0	1
Nummular eczema	1	1	0	0
Total	57	51	3	3

Atopic Dermatitis.—Thirty-two patients, comprising older children and adults, who were given the medication for local therapy were benefited. One was not improved. The antipruritic effect was rapid in onset, and a marked improvement in the appearance of the skin frequently occurred during the first twenty-four hours. Good results were also seen in some of these subjects from the use of the individual ingredients in the emollient base, but the combination of the two active substances proved more consistent in relieving pruritus and promoting healing of the active dermatitis. In the acute phases of the eruption, the use of local medication between moist compresses was found eminently satisfactory, and enhanced the remission. Excellent effect was observed in subacute phases. In the chronic, lichenified, excessively dry phases, it was often necessary to use the active ingredients in a more lubricating base.

In a group of nine infants and younger children, all under the age of five years, striking improvement occurred in seven cases following the use of the combination cream. Relief of pruritus with subsequent reduction of scratching was the most consistent observation. In two youngsters, ages three and four years, no improvement occurred.

Contact Dermatitis.—Nine patients with acute eczematous contact-type dermatitis in whom the specific allergen had not yet been identified were treated with the combination cream. In some instances this was the only medicament employed. In other cases the cream was alternated with moist compresses. In seven cases this therapy was extremely beneficial in controlling the eruption until the specific sensitizing factor could be identified and eliminated. In the two remaining patients, the use of the cream definitely aggravated the condition. One of these was a seventy-two-year-old woman with a dry senile skin, and the other a thirty-eight-year-old woman with a dermatitis of the hands and forearms who was also aggravated by each ingredient alone, as well as by calamine lotion, Burow's solution, and Lassar's paste.

Miscellaneous Eczematous Eruptions. — The combination cream was found extremely helpful in three cases of infectious eczematoid involvement of the external auditory canal; in two patients with stasis dermatitis of the legs; and in one case of nummular eczema involving the hands. One patient with dermatitis herpetiformis was made worse by the medication. Further investigation showed this to be caused by the chloroiodohydroxyquinoline. The antihistaminic drug and emollient base were well tolerated. In view of the common association of iodide sensitivity in this condition, aggravation of the lesions by the combination cream might at first seem not at all unexpected. However, the iodine fraction of choloroiodohydroxyquinoline is held in close combination, and little if any is apparently released. The use of chloroiodohydroxyquinoline in patients with dermatitis herpetiformis without aggravation, and with improvement of the lesions has been reported.[6]

Discussion

Because of the many factors involved in atopic dermatitis, contact dermatitis, and the other eczematous eruptions discussed, it cannot be anticipated that topical therapy alone will cure these

conditions. Excellent results are frequently obtained in these situations by careful allergic investigation with subsequent control of the specific sensitizations responsible for the dermatitis. Local therapy, however, is often necessary to control pruritus, and may help to induce a remission. The use of appropriate local medication to improve the character of the skin and to afford symptomatic relief together with efforts to control specific sensitizing factors offers the best opportunity for rapid relief and ultimate cure of the condition. Aggravation of the skin is frequently seen following the use of local medication, and the choice of materials for topical therapy must therefore be selected with some care. Both pyranisamine maleate, 2 per cent, and chloroiodohydroxyquinoline, 3 per cent, as well as the emollient base in which they were combined, are bland and relatively nonirritating substances, even when used in acutely inflamed skin. Many of the patients in this series who have used a great variety of local medicaments during the period of their difficulty, in some instances extending over a period of years, remarked that the combination cream was the most satisfactory preparation they had yet encountered.

Summary

1. Pyranisamine maleate, 2 per cent, and chloroiodohydroxyquinoline, 3 per cent, combined in a bland water-miscible base, were employed in the local treatment of eczematous dermatoses.

2. Marked relief of pruritus and improvement in the appearance of the skin was observed in thirty-two adults and older children with atopic dermatitis. Seven infants and younger children with atopic eczema were similarly benefited, while two others were not appreciably helped. In seven cases of acute eczematous contact-type dermatitis, the combination cream proved extremely helpful. An excellent response occurred in three cases of infectious eczematoid involvement of the external auditory canal, in two patients with stasic dermatitis of the legs, and in one case of nummular eczema.

3. Aggravation of the skin eruption was seen in two individuals with eczematous contact-type dermatitis, and in one patient with dermatitis herpetiformis.

4. Each of the major ingredients of the preparation studied is a valuable local medicament in the treatment of pruritic eczematous dermatoses. The combination of the two drugs in a bland water-miscible base appears to accomplish a more desirable effect than either one alone.

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EFFECT OF PREGNANCY ON THE URINARY TRACT

(Continued from Page 44)

Summary

The physiological changes in the upper urinary tract as they occur during pregnancy have been described and the present concepts regarding their cause have been related. Studies have been enumerated and treatment suggested for renal pain, pyuria and hematuria as they are manifested during pregnancy.

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Angiocardiography in the Differential Diagnosis of Mediastinal Pseudo-tumor

By Max W. Mattes, M.D., and
I. Donald Fagin, M.D.
Detroit, Michigan

WITH THE use of angiocardiography, many bizarre shadows simulating mediastinal tumors are easily clarified. We recently encountered one such case in which a posterior mediastinal shadow due to cardiovascular overlapping was present in the left anterior oblique position and simulated a mediastinal tumor.

Some of the conditions which might simulate mediastinal tumors on roentgen examination are scoliosis of spine, esophageal cardiospasm, paravertebral abscess, cardiac aneurysm, pericardial cyst, tumor or diverticulum, and mediastinal and interlobar effusions. With conventional fluoroscopic and radiographic technique scoliosis of the spine, cardiospasm and paravertebral abscesses can be diagnosed and excluded. Special positions, such as lateral decubitus, and lordotic views will enable one to resolve the mediastinal and interlobar effusions. In cardiac aneurysms and cardiovascular overlapping, kymography and angiocardiography are of value.

Cardiovascular overlapping may also produce a confusing posterior mediastinal shadow in the left oblique projection as will be demonstrated in the case to be reported. An enlarged left ventricle overlapping a tortuous and widened, or even aneurysmal, descending aorta may demarcate an oval shadow of increased density which will appear to lie adjacent to or posterior to the cardiac silhouette in the left oblique position. In the conventional postero-anterior projection this shadow is usually not visualized. An aneurysm of the descending aorta alone will as a rule project beyond the vertebrae into the surrounding illuminated lung parenchyma.

Case Report

C. P., a sixty-one-year-old white male tool grinder, was first seen by us on March 30, 1949, complaining of intermittent episodes of paroxysmal nocturnal dyspnea of two years' duration. The past history included a hemorrhoidectomy and left inguinal hernioplasty in 1939, the passage of a left ureteral calculus in 1943, and the removal of a foreign body from the heart in February, 1947.

In 1947 while the patient was at work, a piece of steel broke off the material he was grinding and penetrated his chest, entering the left ventricle. An operation was performed at a local hospital where the piece of steel was removed and the laceration of the heart was repaired. Since this accident, the patient had occasional episodes of paroxysmal nocturnal dyspnea and attacks of irregular cardiac palpitation. Other elements in the history were not pertinent. Patient denied any history of syphilis or its manifestations.

Physical examination revealed a surgical scar in the left fifth intercostal space anteriorly. The heart was enlarged to the left with the point of maximum impulse at the left anterior axillary line in the sixth left intercostal space. The sounds were of fair quality with a loud, booming aortic second sound. There were long, loud, blowing systolic and diastolic murmurs audible at all valve areas, but loudest at the base. Rhythm was of regular sinus origin with occasional premature contractions. The blood pressure was 200/100. Physical examination was otherwise not remarkable.

X-ray examination of the chest in the postero-anterior projection revealed enlargement of the heart in its transverse diameter with marked widening and tortuosity of the aorta. There was linear calcification in the aortic nob. The bronchovascular markings were somewhat exaggerated throughout both lung fields.

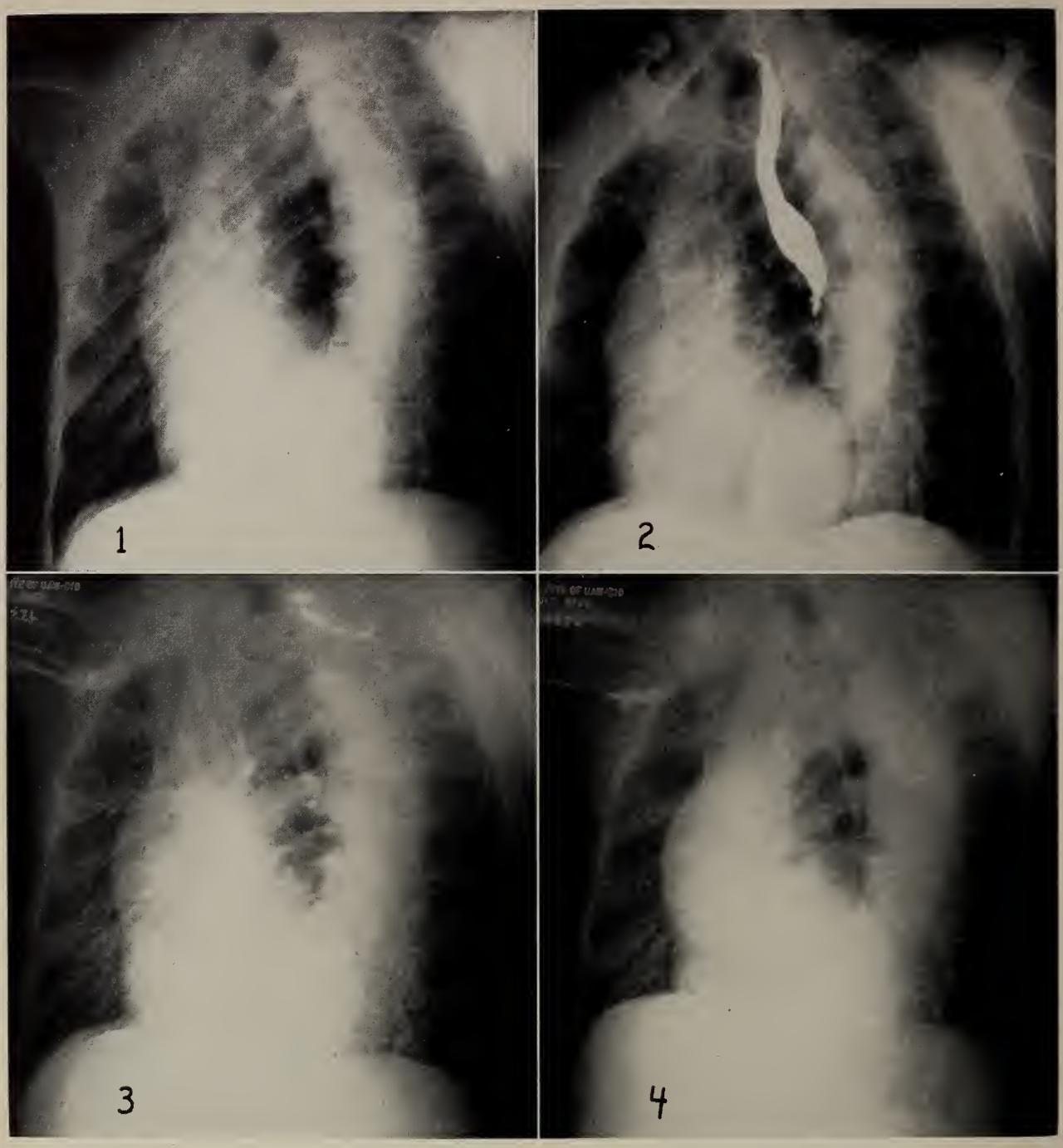
Urinalysis was not remarkable except for a very faint trace of albumin. The hemoglobin was 17.2 grams per 100 c.c. The blood Kahn test was negative. An electrocardiogram revealed the pattern of left ventricular hypertrophy and occasional ventricular premature contractions.

Fluoroscopic examination of the chest revealed aneurysmal dilatation of the ascending aorta, and left ventricular hypertrophy.

The clinical diagnosis was:

Heart Disease
- A. Arteriosclerotic and hypertensive.
- B. Aneurysmal dilatation of the aorta, left ventricular hypertrophy.
- C. Functional aortic and mitral insufficiency, cardiac insufficiency.
- D. Class III C.

In Figure 1, which was taken in the 45-degree left anterior oblique position, an oval shadow of increased density simulating a mass was seen overlapping the left ventricle and dorsal spine. Fluoroscopic examination revealed no evidence of mass; the left ventricle was enlarged and the ascending aorta exhibited aneurysmal dilatation. There was no evidence of paradoxical pulsations. A barium esophagram revealed a tortuous descending aorta displacing the esophagus anteriorly (Fig. 2). Angiocardiography was perfomed with 70 per cent Diodrast solution. In view of the prolonged circulation time in this patient the film at 7.5 seconds (Fig. 3) demonstrated the contrast medium in the right heart and in the pulmonary circuit. At fifteen seconds the contrast



Figs. 1, 2, 3 and 4

medium was visualized in the left ventricle and aorta (Fig. 4), demonstrating the large left ventricle, the aneurysmal dilatation of the ascending aorta, and the tortuous descending aorta overlapping the enlarged left ventricle to produce the confusing oval shadow seen in the preliminary roentgenogram.

Thus, an enlarged left ventricle overlapping a tortuous or aneurysmal descending aorta can produce an oval density simulating a posterior mediastinal tumor. This can usually only be visualized in the left anterior oblique position. Cardiac aneurysms, on the other hand, are usually seen in the postero-anterior projection.

From the preface of Caffey's book[1] the following paragraph is appropriate: "Shadows are but dark and twisted phantoms beyond the substance; alone they are without meaning. He who would comprehend the roentgen shades needs always to know well the material substrate whence they spring—needs always to know well the human body through which the black light streams to reveal the innermost structure in shadowy images."

(Continued on Page 69)

Rectal Administration of Dicumarol in a Case of Mesenteric Venous Thrombosis

By Holbrooke S. Seltzer, M.D.
Ann Arbor, Michigan

AT PRESENT the anticoagulant Dicumarol represents one of the most effective weapons in the treatment of thromboembolic phenomena. Particularly in cases requiring prolonged anticoagulation do its low cost, sustained action, relative ease of control and facility of administration make it superior to heparin.

Clinically the only practicable route of administration is by mouth. The drug can be given intravenously as the disodium salt in an alkaline medium of pH 10 or slightly higher,[4] but the instability of this solution and its alkalinity preclude its routine use.

Although the oral route of drug administration is preferred, clinical situations arise wherein an alternative route is either desirable or mandatory. Thus, in a patient requiring anticoagulant therapy in whom there is pernicious vomiting, continuous gastric aspiration or severe dysphagia, either heparin must be used exclusively or Dicumarol must be given otherwise than orally.

In 1943 Meyer and Spooner[4] reported upon the rectal administration of Dicumarol. In only four out of thirty-four cases, using a dosage of from 5 mg./kg. to 10 mg./kg., was a satisfactory elevation in prothrombin time obtained. They concluded that dicumarol per rectum was only occasionally effective and that its routine use could therefore not be recommended.

The following is the report of a case of mesenteric venous thrombosis in which a postoperative complication necessitated prompt anticoagulant therapy. An effective increase in the prothrombin time was maintained by the rectal administration of Dicumarol:

W. S., a sixty-seven-year-old white mechanic, entered a small nearby hospital complaining of severe abdominal pain, which had come on suddenly in the parumbilical area twelve hours previously and had then radiated into the right lower quadrant. There had been repeated vomiting since the onset of the pain.

Physical examination revealed an acutely ill patient who lay quietly in bed but whose face was distorted by pain. His temperature was 97.8° F., pulse 84 per minute and regular, respirations 20 per minute, blood pressure 130/80. The skin was ashen in color, cool and clammy. The abdomen was moderately distended and exhibited marked tenderness over the entire right side, with maximum tenderness over McBurney's point. There was no spasm or rigidity of the abdominal wall and no rebound tenderness: but palpation in all quadrants produced pain referred to the right lower quadrant. The remainder of the physical examination was within normal limits.

The admission blood count was as follows: hemoglobin 15.7 grams or 100 per cent; red blood cell count 5,430,000 per cu. mm.; white blood cell count 12,500 per cu. mm.; neutrophiles 88, with 75 segmented and 13 nonsegmented forms; lymphocytes 12. No other preoperative laboratory work was performed.

Two hours after admission, with a preoperative diagnosis of acute appendicitis, a McBurney incision was made. Upon opening the abdomen approximately two quarts of serosanguinous fluid poured from the wound. Exploration revealed a gangrenous terminal ileum. This incision was closed and the abdomen was reopened via a midline suprapubic approach. Two-thirds of the terminal three feet of the ileum, with its attached mesentery, were completely gangrenous. The appendix was normal. The gangrenous bowel and its mesentery, with a generous margin of normal tissue, were resected and an end-to-end anastomosis performed. During the operation 1000 c.c. of 5 per cent glucose in normal saline were given intravenously. The patient left the operating room in good condition, with normal skin color and temperature, a regular pulse of 80 per minute and blood pressure 150/68. As soon as he had reacted, a Levine tube was passed and continuous Wangensteen drainage instituted. Daily administration of 300,000 units of procaine penicillin intramuscularly was initiated. Because of the risk of intra-abdominal bleeding, anticoagulant therapy was deferred in the immediate postoperative period.[1]

On the first postoperative day the temperature rose to 100.4° F. The abdomen remained moderately distended and the patient hiccoughed whenever the Levine tube became occluded. During the next five days the temperature oscillated between normal and 100.2° F., and abdominal distention persisted. Bowel sounds were inaudible, and nothing passed per rectum until the fourth postoperative day, when a large liquid brown stool and much flatus were produced.

On the fifth postoperative day the patient complained of soreness in the right calf. Examination revealed the entire right leg to be swollen, red and abnormally warm. There was three-plus edema of the foreleg, a strongly positive Homan's sign and marked calf tenderness. The temperature spiked to 100.6° F. The leg was elevated and in the presence of this fulminating thrombophlebitis it was decided to institute anticoagulant therapy.

Intravenous heparinization was started in intermittent

From the Department of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan.

TABLE I

Post-Op Day	Time of Day	Heparin Mg. I-V (intermittent)	Daily Prothrombin Times in Seconds		Dicumarol Mg. per Rectum
			Control	Patient	
5	6:00 p.m.	100			
6	1:30 a.m.	50			
	6:00 a.m.	50			
	4:00 p.m.	100	14	15	400
7	12:30 a.m.	100			
	12:30 p.m.	100	14	17	800
8			14	30	100
9			14	32	
10			14	44	
11			14	26	100
12					
13			14	34	
14			Dicumarol Discont.		
15					
16			14	15	

doses, according to the method of Crafoord and Jorpes[2] The dosage schedule is shown in Table I. At the same time, oral Dicumarol administration was attempted by clamping the Levine tube for one hour after each dose, but vomiting and loss of the drug occurred each time shortly after clamping the tube, and this route was abandoned after two trials.

Accordingly on the sixth postoperative day, rectal administration of Dicumarol, in the form of cocoa butter suppositories, was commenced. Lacking a therapeutic guide the dosage was selected on a purely empirical basis, although it was believed that somewhat larger doses would be required than during oral therapy. The dosages used are recorded in Table I. Daily prothrombin times were determined by the one-stage method of Quick.[5] Elevation of the patient's prothrombin time to a value twice that of the control was considered the optimum level.[6] When the patient's prothrombin time exceeded thirty seconds Dicumarol was omitted for that day. No clotting times were obtained while heparin was being administered.

By the morning of the eighth postoperative day there was very little residual edema of the right leg, although there was still moderate tenderness in the calf. Three days later this tenderness had entirely disappeared, but it was deemed advisable to continue treatment for a few more days.

Continuous Wangensteen drainage was necessary until the thirteenth postoperative day because the patient became distended and hiccoughed or vomited whenever the Levine tube was clamped. Fluid and electrolyte balance were maintained by daily intravenous infusions of 3000 c.c. of five per cent glucose in water or in normal saline. The sodium chloride requirements for the day were estimated following a Fantus test for urinary chlorides,[3] performed on a morning specimen. Detailed analysis of the serum electrolytes was not obtainable in this small general hospital. Upon removal of the tube on the thirteenth day the patient retained all liquids and was rapidly advanced from clear liquids to high caloric liquids and then to a soft diet.

On the fourteenth postoperative day the patient first complained of nausea and abdominal pain. An hour later the incisional site opened spontaneously and drained a large amount of foul smelling sanguinopurulent material, a stained smear of which revealed numerous short, thick, Gram-negative rods. Dihydrostreptomycin and sulfasuxidine were started, and the daily penicillin dosage was increased. After two days of profuse outpouring the drainage steadily decreased and the wound was entirely dry on the nineteenth day. The day prior to this the patient had the first semi-formed stool since his operation.

Following subsidence of the wound abscess, convalescence was rapid and uneventful except for moderate swelling of the right foot and ankle when the patient was up and about. He was discharged in good condition on the twenty-eighth postoperative day. It is now one year since his acute abdominal episode and he has regained and remains in his former excellent state of health.

The pathological report on the resected specimen was as follows: "Grossly this specimen consists of approximately two feet of gangrenous small bowel. At each end there is a small segment of essentially normal bowel structure. Microscopically, the wall of the bowel is enormously thickened by interstitial hemorrhage and edema. The tissue elements are becoming necrotic. The mesentery is likewise thickened and involved by extensive interstitial hemorrhage. This lesion has all the features of a mesenteric thrombosis except for the presence of a thrombus in the mesenteric vessels. This latter finding is not demonstrable. There is no evidence of neoplasm."

Summary

In this case of mesenteric thrombosis the patient survived despite a prolonged morbidity complicated by a severe thrombophlebitis and a large wound abscess. Immediate postoperative anticoagulant therapy was considered ill advised because of the risk of intra-abdominal hemorrhage. The development of thrombophlebitis in a lower extremity on the fifth postoperative day, however, necessitated its use in the face of an unremitting ileus which required continuous Wangensteen drainage. Cocoa butter suppositories of Dicumarol were therefore administered and an entirely satisfactory elevation of the prothrombin time was achieved.

Conclusions

A therapeutic effect on prothrombin activity can be achieved by Dicumarol given rectally. Administration of the drug by this route may be of advantage when circumstances prevent its use by mouth.

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Dilaudid Suppositories for the Suppression of the Cough Reflex

With Review of Medication by Rectal Administration in Childhood Diseases

By K. Donelson, M.D.
Dearborn, Michigan

WHILE TREATING an upper respiratory infection probably of virus etiology, in a two-year-old girl (T.D.), a severe, nonproductive, constant cough was present with extensive hyperemia and edema of all the nasopharyngeal tissues. Otitis media, mild, was the only other positive sign, chest signs being entirely negative. Rectal temperature was 104°, pulse 144, respirations 40.

300,000 units of Crystalline Penicillin Procaine G in Oil with 2 per cent aluminum monostereate were administered intramuscularly. It was impossible to administer medication orally because the child had refused food and liquids for twenty-four hours, probably due to the pain and swelling. A gavage tube was not available. The inflammation was progressing rapidly, and after four hours it seemed that the trauma of the constant cough was the chief factor in the increased swelling and edema of the tonsils which was starting to cause a stridor in the breathing. It seemed imperative to depress the cough immediately, as the possibility of performing a tracheotomy seemed imminent.

Calls to several pharmacies for codeine or some other morphine derivative in suppository form, revealed that only Dilaudid, grains 1/24, was available. One-half of a suppository was inserted rectally, and within fifteen minutes not only had the cough subsided but also the child had ceased crying and had gone to sleep. Respirations were depressed to 15 per minute. After two hours the stridor had subsided considerably and instructions were left to continue the suppositories at the rate of one-half (Dilaudid 1/48 grains) if the cough recurred, providing the respirations were above 20 per minute. A second dose was required about seven hours after the initial dose.

Examination after twenty-four hours revealed dramatic change. The inflammatory reaction in the throat had undergone a remarkable improvement, no edema and only slight hyperemia remained, although the rectal temperature was still 101°, pulse 132, respirations 22. The mother reported that the child had taken fluid twice during the night and had eaten well during the day. It was believed that removal of the mechanical trauma of the cough was the predominant factor in this sudden improvement of the nasopharyngeal tissues.

Additional Therapeutic Trials

The above case responded so dramatically that Dilaudid suppositories were used in thirty-two consecutive clinical cases as the sole adjunct to penicillin in cases of upper respiratory infections, with nonproductive cough but negative chest findings. Dilaudid was also used to suppress pain in several cases of severe cervical adenitis and otitis media of undetermined etiologies. The age group of the above-mentioned cases ranged from six months to four years. There was no difficulty with the premature expulsion of the drug before absorption.

The results seem to me to be so spectacular and the gratitude of the mothers of these children so great that this report is offered to the profession in its purely empirical form with the hope that scientific research and clinical trial will be accelerated, not only with Dilaudid but all medications that can be administered rectally in childhood diseases. A discussion of this route of medication follows.

Rectal Mode of Administration of Drugs in General

While on the West Coast in 1949, it was observed that acetylsalicylic acid and barbiturate suppositories were used very freely by several pediatricians. Also suppositories of these drugs were available at the majority of the pharmacies without a special order. Since returning to the Middle West, it has been difficult to find pharmacies stocking these suppositories or any suppositories containing dosages small enough for administration to children. This would seem to be an indication that the rectal mode of administration has very limited use by general practitioners treating children in this area.

Attention is called to some of the advantages and disadvantages of the rectal mode of administration of drugs.

Advantages.—

1. Ease of administration to children, particularly by mothers.
2. As an alternate method of administration where there is difficulty in swallowing due to swelling or pain.
3. When the predominating symptoms are nausea or vomiting.
4. Elimination of the difficulty in attempting to force oral medication on children.
5. Elimination of the fear caused by the pain of the hypodermic injection.

Disadvantages.—

1. Expulsion of the medicine before complete absorption.
2. Most suppositories require refrigeration.

(Continued on Page 64)

A Rational Approach to Benign Prostatic Hypertrophy

By William J. Butler, M.D.
St. Joseph, Michigan

THE MORBID state resulting from benign prostatic hypertrophy is not uncommon in the male population after the fourth decade. Less frequently the case of complete urinary retention is brought to the physician's attention and obviously requires surgical consideration. However, the average physician encounters a much larger group of men who have symptoms of obstruction to the outflow of urine, decrease in size and force of the stream, frequency, and nocturia. Often the history is not forthcoming but requires careful questioning, observation of the voided stream, and rectal palpation of the prostate. Indeed there is a small group of patients who have no urinary complaints at all (although careful questioning usually discloses urinary symptoms) but have uremia from chronic urinary retention. Furthermore, there is an erroneous belief by many physicians that a grossly enlarged prostate is necessary to cause obstruction. Actually, a small hypertrophied prostate may cause complete urinary retention as effectively as the large gland, and the amazing fact remains that an enormous hypertrophy may occur before complete obstruction intervenes. Since the urethra is about 1 cm. in diameter, it requires but little stretch of the imagination to see how easily it is obstructed by projection of the lateral lobes 0.5 cm. into the lumen. Almost half of all prostatectomies in one large hospital were performed upon glands of normal size and weight. Many of these patients were in complete retention.

Endoscopic observation of the prostatic urethra of men from the fifth decade onward will disclose some degree of intraluminal projection of the prostate in the vast majority. In some there is observed complete occlusion, and yet these people may be emptying their bladders. On the other hand, men are observed in complete retention where the hypertrophied lobes are not in total apposition. The answer to this situation is found in the bladder, a smooth muscle viscus that is too often ignored in the concept of prostatic hypertrophy. It is this bladder muscle that generates the hydrostatic pressure sufficient to separate the soft and yielding prostatic lobes which fill the lumen of the prostatic urethra. Indeed, it is this yielding, expansive quality of the glandular hypertrophy of the prostate that allows the disease to proceed for a prolonged period.

The bladder musculature reacts to obstruction of the urethra by hypertrophy and increased work. The corrective capacity on the part of this muscle is remarkable, and when the compensation is complete, the patient experiences few or no symptoms that might draw his attention to the urinary function. The bladder hypertrophy progresses as the lumen of the urethra decreases, and a correct balance is often maintained for many years. The force of the stream is good during this phase, but the caliber is usually diminished when observed by the physician. The symptom of frequency very often develops during this stage but may be hardly noticeable at first. Ultimately, the patient observes that he cannot sleep the entire night without rising one or more times to void. This is associated with increased irritability and a decreased capacity of the bladder, with a definite desire to void when the bladder is distended with a smaller quantity of urine than he previously experienced. This smaller capacity is possibly a result of the increased reflex activity of the hypertrophied musculature. The bladder is now grossly trabeculated by hypertrophied ridges of muscle, and often develops cellules and diverticula. The latter are outpouchings, or "blow-outs," of the bladder mucosa through the interlacing strands of muscle, and occur in certain people but not in others. Variation in the configuration of the muscle bundles with scattered weak points is a possible predisposing factor of their development. When this occurs, the patient starts to carry a residual urine equal to the capacity of the diverticula, because part of the urine is voided through the urethra and part into the diverticula, which have no musculature in their walls. In a similar manner, some patients develop reflux up the ureters, which become dilated and act in the manner of diverticula.

Case 1.—H. B., a man aged forty-eight, had recurrent episodes of frequency of urination for two years. He had prostatic massages with temporary relief. During the present attack he had nocturia two to four times. The size and force of the stream has been reduced for the past two years. On examination the prostate was small and benign, the urine was normal, and there was no residual urine upon catheterization. Cystoscopic

examination disclosed gross trabeculation of the bladder with left lateral lobe and median lobe obstructing prostatic hypertrophy. The nonprotein nitrogen was normal. He responded well upon medical management and the nocturia was reduced to once per night.

The stage of decompensation of the bladder muscle is heralded by the presence of residual urine after the patient has voided. This may be intermittent at first. Typically, if he allows his bladder to become distended, he notes that within a few minutes after voiding he again has the desire and is able to void a further amount. The fatigued muscle in this case empties partly, rapidly regains strength, and on the second contraction empties the bladder. Progression of the fatigue state results in an ever-present residual urine. The muscular mass is no longer capable of a sustained emptying contraction, and the voided stream stops and starts, dribbles, regains force and ends in a prolonged dribble. The unfortunate individual, enslaved to the perversity of his urination, repeatedly returns to the toilet in the vain pursuit of an empty bladder. He may develop incontinence, and finally either "overflow" or complete urinary retention. The bladder muscle has now failed and is incapable of a sustained contraction. Even then the intra-abdominal pressure is sometimes sufficient to expel a small dribble of urine by "overflow." Similarly, some patients develop uremia with bilateral hydronephrosis and hydroureters with a large residual urine while still able to void small amounts without apparent discomfort. This is known as silent prostatism, and every doctor should be on his guard for this serious situation. Permanent renal damage may occur, increasing the operative risk tremendously and in some instances preventing a surgical attack upon the prostate. Finally, in cases of long standing, the decompensated bladder may undergo irreversible atrophy, so that it may never again be capable of emptying in spite of complete rest on prolonged drainage, either by suprapubic or by urethral catheter.

Case 2.—J. W., a man aged sixty-seven, for the past eighteen months had noted progressive increase of fatigue, 15 pounds weight loss, nausea and dyspepsia upon arising in the morning, and constipation. Careful questioning elicited frequent nocturnal urinary incontinence. He was unable to continue his job as a railway clerk. Treatment during the year has been a gastric ulcer diet and liver "shots" for severe anemia. He voids without discomfort and has no symptoms drawing his attention to the bladder.

Examination demonstrated a thin, chronically ill, anemic man in no distress. A large soft cystic mass fills the lower abdomen. The prostate is enlarged and benign to palpation. Urinalysis: specific gravity, 1012; albumin, 2; sugar, 0; white cells, 1; red cells, 3. Blood nonprotein nitrogen, 217 mg. per cent. Emergency suprapubic cystostomy was performed and 1200 c.c. of urine obtained. The patient is now on permanent cystostomy drainage because the nonprotein nitrogen remains at 92 mg. per cent, although he has improved remarkably six months after operation.

Patients with urethral obstruction are prone to develop bladder calculi, urinary infection, epididymitis, and pyelonephritis at any stage of the disease. Any of these complications may be the presenting problem and the underlying cause should be suspected in any man over fifty years of age. The rate of progress of this disease complex is influenced on one hand by the development of the obstructing tissue and on the other hand by the capacity of that individual's bladder to respond to the increased demands placed upon it. The latter response may be influenced by the general state of nutrition and concurrent constitutional diseases. Benign hypertrophy begins in the fourth decade, although serious clinical symptoms may not become apparent until the sixth or seventh decade. The average age at which these people come to operation is seventy years. Acute retention may be precipitated at any stage of the disease by inflammation or edema of the prostate.

The diagnosis of benign hypertrophy of the prostate is made by rectal palpation of the gland, and, if necessary, confirmed by cystoscopy. It is not necessary that the gland be enormously enlarged, for most obstructions result from glands weighing 20 to 30 gm. It must be differentiated from carcinoma of the prostate, for which digital palpation is most important, with secondary assistance from the blood phosphatases and bone x-rays. Tumors of the bladder, bladder calculi, and renal lesions must also be recognized, for which intravenous pyelography is of great aid. When the diagnosis of a benign prostatic hypertrophy is made, the immediate decision about the future management depends upon the stage of the disease that is present.

The advanced stage is apparent by one or all of the following: (1) elevation of the blood nitrogen, (2) marked decrease in the size and force of the stream, (3) a residual urine of over two ounces, (4) complete urinary retention, (5) or where the excretory pyelogram shows gross tra-

beculation of the bladder, diverticula, or ureteral dilatation. In these patients serious consideration for surgical correction should immediately be undertaken. When infection is present in the urine a course of sulfonamide, 0.5 gm. four times daily, for a week will be adequate in most cases. If the infection continues the physician should be on his guard for high residual urine, calculi, or complicating urinary lesions. Furthermore, detailed urinary investigation is then indicated. Similarly, the presence of hematuria, either gross or microscopic, should be thoroughly investigated by cystoscopy and pyelography, as tumors also occur most commonly in this age group. Gross repeated hemorrhage from an hypertrophied prostate should be given definite consideration for surgical correction by prostatectomy.

The early stage is indicated by nocturia less than three times nightly, no residual urine, normal blood nitrogen level, and only moderate decrease in the size and force of the urinary stream. If an excretory pyelogram shows no evidence of renal or bladder complications, this patient may be handled by a medical regime and checked at half-year to yearly intervals to evaluate the progress of his disease. The patient should be instructed to drink a glass of fluid every hour from breakfast until 2:00 p.m. After this, he should drink his usual amount, and after 6:00 p.m. he must limit fluids. In this manner the total twenty-four-hour fluid intake is increased and yet there is less urine produced during the hours of sleep, because the greater part has been eliminated by 10:00 p.m. A nightly Sitz bath will aid in decreasing bladder irritability. Tincture of hyocyamus, 1 c.c., before meals, will also decrease bladder irritability. A balanced diet, high vitamin intake, and the correction of associated systemic diseases are essential to the well-being of the patient. Alcoholic beverages, if so desired, may be taken in moderation.

Many patients will obtain marked symptomatic relief upon such a program as above outlined. As time passes the patient may enter the more advanced stages of the disease and will then require surgical intervention.

Summary

It has been emphasized that symptoms from benign prostatic hypertrophy are common from the fifth decade onward. It is the physician's responsibility to recognize the disease, evaluate the patient's status, and to institute the proper therapy. The urinary function is an expression of the compensation or decompensation of the smooth musculature of the bladder. Urinary infection, pyelonephritis, epididymitis, prostatitis, and calculi may complicate the picture. Furthermore, hemorrhage, either gross or microscopic, and resistant infections require thorough urologic investigation by cystoscopy and retrograde pyelograms. Less advanced cases may be managed by a regime of careful observation and medical therapy.

MSMS

DILAUDID SUPPOSITORIES FOR THE SUPPRESSION OF THE COUGH REFLEX

(Continued from Page 61)

I firmly believe that infants and children should receive the same consideration as to the relief of pain as adults, especially since there is less danger of narcotic addiction than in adults.

Conclusion

1. One case history is presented in which the inflammatory symptoms of the nasopharyngeal tissues subsided dramatically following suppression of the cough reflex with Dilaudid suppositories as an adjunct to routine treatment of an acute upper respiratory infection.

2. It is only suggested that the mechanical trauma of coughing may be a factor in aggravation of the inflammation of the nasopharynx in the upper respiratory infections with nonproductive cough.

3. While empirically it is my impression that Dilaudid suppositories administered rectally are much more effective and less toxic than codeine administered orally, as far as suppression of the cough reflex and relief of pain are concerned, no scientific data has been gathered nor are any scientific claims made.

4. A plea is being made to the medical profession for a thorough research and clinical investigation of the rectal mode of administration for all drugs and medicine used in the treatment of diseases of infants and childhood.

24628 Penn Ave.
Dearborn, Mich.

Detroit Physiological Society

Meeting of October 19, 1950

Connective Tissue Alterations In Degenerative Disease

C. H. Altshuler, M.D.
Wayne County General Hospital

The reported study was undertaken to determine the conditions under which acid mucopolysaccharides, such as hyaluronic acid and chondroitin sulfuric acid, are formed. Using histochemical staining techniques, it was observed that these carbohydrate polymers are frequently produced in the early stages of serous inflammation (Rössle).

Since serous inflammation has been studied extensively, much information is available concerning the conditions under which the acid mucopolysaccharides may form. Ordinarily, serous inflammation is found to be associated with increased capillary and cell membrane permeability and decreased tissue permeation. Retention of sodium, chloride and water and loss of tissue potassium and phosphate have been reported. Increased glycolysis (carbohydrate breakdown with formation of lactic acid) also occurs. The chronological order and significance of each of the individual changes in this process is not known.

Serous inflammation has been reported to be of significance in rheumatic lesions, vascular alterations associated with malignant hypertension, cardiac changes in beriberi, myxedema and other conditions. It is also believed to be involved in certain degenerative diseases of the connective tissue such as sclerosis, hyalinization, and fibrinoid formation. The latter degenerative structures give a positive reaction for polysaccharide aldehyde (periodic acidleukofuchsin) and have a temporal, spatial and configurational relationship to the acid mucopolysaccharides. Therefore, it is believed that the acid carbohydrate polymers participate in the reactions resulting in these degenerative formations. The exact manner is not known.

Since many current investigations concern themselves with aspects of serous inflammation, a more detailed evaluation and appreciation of the process is desirable. Examples of such studies are those which relate to the "general adaptation syndrome" of Selye, the mechanism of action of ACTH, the hyaluronic acid hyaluronidase system in the rheumatic diseases, and anti-reticular cytotoxic serum.

The investigative work was carried out in collaboration with Dr. D. M. Angivine, Chairman of the Department of Pathology, University of Wisconsin.

The Effect of Portacaval Venous Shunt Upon Bromsulphalein Retention

D. E. Preshaw, M.D., Alfred Large, M.D., and Arthur F. Johnson, Ph.D.
Department of Surgery, Wayne University College of Medicine

An experimental study of the effect of diversion of the portal blood flow upon liver function in the dog is reported. Animals were prepared with both partial and complete shunts of portal blood away from the liver. Bromsulphalein retention was used as an index of liver function in these animals. Studies of the resistance of the liver in shunted and control animals to carbon tetrachloride poisoning also are reported. It was found that the animals with complete portacaval shunt (Eck Fistula) retained more bromsulphalein than did either the controls or those animals with partial shunts, and also that the Eck fistula animals tolerated carbon tetrachloride poisoning less well than did the other two groups.

It is suggested that portacaval venous anastomoses in the human be performed so as to only partially shunt the portal blood away from the liver.

Microtechnique: Essentials of the Paraffin Method

(Full color-sound film; running time 26 min.)

Frederick A. Waterman, Ph.D.
Department of Biology, Wayne University

This film shows the complete process of making microscopic preparations by the paraffin method. It covers every step from removing the tissues from the anesthetized animal to final labeling

(Continued on Page 102)

Shadows

We have asked many of our confrères what they most desired in postgraduate training. Most of you have claimed special interests and wanted to further perfect them. That is why the specialist is so eager to see that his specialty is adequately covered in the Postgraduate Institute in March. The Academy of General Practice has been most helpful in developing a portion of the program which would appear to be more closely related to their memberships' desires. We have pioneered and have been told our results were good. The Michigan plan of postgraduate training has been widely emulated. It has been called one of the best in the world.

A more recent innovation has been the advent of postgraduate training departments in the larger hospitals. These serve the dual purpose of correlating the training of the resident staff, as well as working out a supplementary course of training for visiting doctors. Probably one of the most important results of this type of training has been the splendid opportunity offered for research. Why, then, are we not satisfied with all this?

The answer is simple. There are claims made that we are developing only highly specialized doctors of medicine who are unable to perform many of the little but important services which patients have a right to expect of their doctors. The recent graduate is forced, because of his Board membership, to do only those things which can be done in a well-equipped hospital. He cannot relieve his older confrère of part of the exhausting drudgery connected with making home calls. This often leads to dissatisfaction when many doctors are contacted and services are unobtainable. The public relations growing out of this phase of medical care has many repercussions. In fact, many patients have been denied the excellent care which should have been available and have resorted to those sub-standard cults practicing the healing arts. We predict that, if this tendency to treat patients only within the narrow confines of a specialty continues, soon all patients will be hospitalized for all care. We know this to be unnecessary and believe it has already progressed much farther than it should. We believe that the cost of medical and hospital care insurance programs will become prohibi-

tive and aggravate further the demand for even more expensive and less efficient socialized medicine.

Why then should we cast the shadows of socialism over our postgraduate program? For this reason only we should be willing to face any inadequacy and broaden our present excellent facilities to cover them.

For those recent graduates who have passed their Board examinations, we would recommend a four-year period of acclimation. During this time they would be free to perform any service requested of them for which they are qualified. An even better plan would be a working arrangement with a busy general practitioner. Another approach would be to make specialty training, in a teaching hospital, available after the young doctor had completed one or two years of hospital training and four years of general practice.

Many times during the past five years we have heard the complaint that doctors, who have been in general practice ten, twenty or thirty years, find it impossible to complete a specialty training. There is no place for them in the teaching hospital. Many times the general practitioner has spent four or five years, before entering general practice, in a hospital not approved for teaching purposes. At the present time there is no provision for this practitioner to review his specialty techniques and basic sciences under supervision and then present himself for examination. We believe a course with qualifying credits could be made available. A few enterprising members of the medical profession have been able to work out such a program on their own initiative, but all encountered tremendous difficulties.

This latter phase of postgraduate training was discussed a few days ago with one of our Past Presidents, E. F. Sladek, M.D., of Traverse City. He had a most encouraging story to tell, and we shall hope to hear more of his plan soon.

I wish to repeat, our present plan of postgraduate medical education is excellent. Let us then make any necessary addition and remove some of the shadows being cast on medical care.

C E Umphrey M D

President, Michigan State Medical Society

President's Message



Editorial

MICHIGAN MEDICAL SERVICE OVER 2,000,000 SUBSCRIBERS

MICHIGAN MEDICAL SERVICE has continually demonstrated its grand service to the people of the State of Michigan and to the members of the Michigan State Medical Society who had the foresight to pioneer in the formation of this great public service corporation. Our members are justifiably proud of the accomplishment of our voluntary health service program and of the great strides which it is making in benefits to our subscribers and members. This is an enterprise which belongs particularly to us. It is our bulwark against socialized medicine. It is our means of distributing our services to our people, and it is especially our means for aiding our people in paying for services which many thousands of them would be unable to afford were it not for a method of prepayment.

As of November 23, 1950, we had 2,006,513 persons protected by Michigan Medical Service. Michigan was the first of the Blue Shield Plans to reach the million mark. At the million and a half mark, we were surpassed by a few thousand by the United Medical Service of New York, but when it came to the two million mark, Michigan is again the first medical service group to insure two million people. This is one-third of the population of our state. We have reason to be proud, but we are not entirely satisfied. Ultimately, we have reason to feel, our own public service plan will be a complete success.

As of October 1, 1950, Michigan Medical Service had paid for medical and surgical services to its certificate holders $47,624,494.50 and for the veterans plan $4,571,490.58, making a grand total paid out for professional services and benefits to our subscribers $52,195,985.08.

TOO LARGE?

ONE OF THE large Michigan drug companies has notified Blue Cross that it is withdrawing, not because it does not believe in the principle of private prepayment medical and health care, but to encourage the formation of other sources of that coverage. It believes these plans should be small with many of them, so the services could be easily obtainable.

Prepaid medical and hospital service, naturally and logically, must be administered by a company large enough to guarantee an equitable and safe insurance risk. We have talked with physicians and executives of medical prepaid nonprofit plans throughout the country, and they envy Michigan and other states where the plans are large enough to be secure and stable.

We asked the detail man from this drug company what would happen if his company were thought to be too big, and was divided into a half dozen smaller companies. He threw up his hands in horror, and said there would be no . . . company.

One very strong point to consider in medical and hospital service plans is that the medically sponsored companies fix fees and payments by consultation with the doctors and hospitals and may consider them full payment under the wage ceiling. The "for profit" insurance companies never consult the doctors in setting up their schedules of fees, and in fact are not offering anything else than an indemnity. The Insurance Company and the insured hope the doctors and hospitals will accept their payments as full payment. There is no such obligation unless the benefits have been negotiated between the doctor, the hospital and the patient.

It should be noted that one high official of this company retains Blue Cross and Blue Shield for his own family group.

MEDICAL EDUCATION

ALBERT Q. MAISEL has again broken into print in an article very critical of the medical profession. *Collier's* magazine for December 16, contains over four pages about "Our Alarming Doctor Shortage," with a corner block signed by the editor saying, "We hope that the AMA leaders will withdraw their opposition." This is one of many articles which have appeared, apparently instigated by the Federal Security Administrator in his effort to gain control of the practice of medicine.

The American Medical Association has acted to lay that canard at rest. At the interim session

at Cleveland, December 6, 1950, it appropriated a half million dollars for the aid and support of medical schools in need of additional financing.

The profession has never failed to support medical education. On the contrary, it has been instrumental in raising the standards, in attempting to guarantee that students will have the very best of instruction and opportunity. It has encouraged excellence of training as well as increased numbers, because it knew only too well the need of the very best skill and training at the bedside and at the operating table.

Michigan has not been behind. The Michigan State Medical Society has repeatedly fostered additional financing for our medical schools especially by appeals to the legislature and by sponsoring additional facilities for increased training.

WE MUST NOT FORGET

MANY OF OUR members and some of our administrative workers felt great relief at the result of the election held in November. We looked with pride upon the thinning numbers of our most sinister Senators and felt that the bureaucrats in Washington who are determined to continue this socializing process of the American people would take a hint and become less active. That was not to be.

Late in October, the CIO "Committee for Public Health" published an advertisement in many papers throughout the country containing part truths, misleading statements, and some downright misstatements. This advertisement featured a letter supposed to have been written by a mother to her doctor and was timed to catch many votes just before election. On another page, we are publishing the radio reply of L. Fernald Foster, M.D., Secretary of the Michigan State Medical Society. If you have not done so, you are urged to read this masterpiece, on page 1442 of THE JOURNAL for December, 1950.

A large sheet of paper about the size of a newspaper page, printed upon one side as if it were a copy of a page advertisement was received by the Editor at his R.F.D. address. We do not know the extent of distribution but it came from the A.F. of L. national headquarters in Washington and is signed by William Green, President, and George Meany, Secretary. It contains practically the same slanted information as the advertisement of the CIO. It was also featured in one corner by a disrespectful letter which the recipient is supposed to sign and send to his doctor. The advertisement asked for contributions for the Committee for the Nation's Health, the group of left wingers who are continuing the campaign for socialized medicine and who have been certified as Communist front.

(Incidentally, the A.F. of L. is not unanimous. President W. L. Hutcheson of the Carpenters and Joiners Brotherhood addressed the AMA at Cleveland, strongly in favor of Medicine's side of this controversy.)

President Truman, last November, restated his policy of determination to repeal the Taft-Hartley Law, to further socialize Agriculture, Education, and especially his program on "National Health Insurance," his euphemistic term for "socialized medicine."

Now, above all times, we must not relent in our efforts to thwart the socializers. A newspaper publisher friend of ours, after the election, asked whether we were satisfied and commented that we might rest now for two years. Asked if he really believed this, he told the story which used to be prevalent on the Kansas plains, "The only safe rattle snake is the one hung on the fence."

MSMS

MEDIASTINAL PSEUDO-TUMOR

(Continued from Page 58)

Summary

A case is reported wherein the overlapping of an enlarged left ventricle and a tortuous descending aorta simulated a posterior mediastinal tumor in the left anterior oblique view. Angiocardiography served to define the components of this pseudo-tumor.

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WHAT OUR READERS SAY

"If it weren't for those of you, particularly Corbus and yourself down through the years, medical economics would have taken an awful beating."—W. A. HYLAND.

". . . proud of the work you have done and accomplished, especially with the state society and JOURNAL. It has been a tremendous job with perhaps very little thanks, but nevertheless we all appreciate the good work you have been doing."—EDWARD M. VARDON.

"I want to pay my respects to you for the editorial skill shown. . . . Have always enjoyed editorial work myself."—F. J. SLADEN.

Fifth Annual Michigan Postgraduate Clinical Institute

BOOK-CADILLAC HOTEL, DETROIT

MARCH 14, 15, 16, 1951

BURTON R. CORBUS, M.D., Grand Rapids, *General Chairman*

Information

- **HEADQUARTERS.**—Book-Cadillac Hotel; Assemblies, Exhibits and Press Room on Fourth Floor; Luncheons in English Room on Mezzanine Floor.
- **REGISTRATION.**—Tuesday noon through Saturday noon, March 13-17, Book-Cadillac Hotel.
- **ADMISSION BY BADGE ONLY** to all meetings and to the exhibits. Present your MSMS, State or Canadian Medical Association membership card to expedite registration.
  NO REGISTRATION FEE FOR MSMS OR OTHER STATE MEDICAL SOCIETY MEMBERS, OR FOR CANADIAN MEDICAL ASSOCIATION MEMBERS.
- **ADVANCE REGISTRATION WILL SAVE YOUR TIME.**—**Preconvention** registration is arranged for Tuesday, March 13, 1:00 p.m. to 4:30 p.m. Registration will resume Wednesday, March 14 at 7:30 a.m. Avoid waiting in line by registering Tuesday afternoon or early Wednesday morning.
- **SUBSCRIPTION LUNCHEONS.**—Wednesday, Thursday, Friday, Saturday, March 14-15-16-17, English Room, Book-Cadillac Hotel, 12:15 noon to 2:00 p.m. with a thirty-minute scientific address following each luncheon. See Program, pages 72, 74, 75.
- **WEDNESDAY NIGHT — ENTERTAINMENT CABARET STYLE:**
  8:30 p.m. Don Large and his five Grenadiers; fine choral voices.
  9:00 p.m. to 1:00 a.m. Battle of Music—the Old vs the New! This battle will feature The Old Timers playing for square dances and quadrilles, and Reg Thornton and his orchestra, Detroit's outstanding band playing sweet numbers and South American tempos.
- **TELEPHONE SERVICE.**—Local and long distance telephone service will be available in the Book-Cadillac Hotel, fourth floor. In case of emergency, physicians will be paged from the meetings by announcement on the screen. Call the Book-Cadillac Hotel, Detroit, Woodward 1-8000, and ask for the Michigan Postgraduate Clinical Institute extensions on the fourth floor.
- **CHECKROOM** is available in the Book-Cadillac Hotel, fourth floor.
- **GUEST ESSAYISTS** are very respectfully requested not to change time of their lecture with another speaker without the approval of the Committee on Arrangements. This request is made in order to avoid confusion and disappointment on the part of members of the audience.
- **PAPERS WILL BEGIN AND END ON TIME.**—Nothing makes a scientific meeting more attractive than by-the-clock promptness and regularity; therefore, all meetings, luncheons, and clinical conferences will open exactly on time, all speakers will be required to begin their talks exactly on time and to close exactly on time, in accordance with the schedule in the Program. All who attend the Institute and the Heart Day are respectfully requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly, in order not to miss that portion of the program of greatest interest.
- **TECHNICAL EXHIBITS.**—74 interesting and instructive displays—will open daily at 8:30 a.m. and close at 5:30 p.m., except on Friday, when the exhibit breaks up at 3:30 p.m. No exhibit on Saturday. Frequent intermissions to view the exhibits have been arranged daily before, during and after the assemblies and luncheons.
- **REGISTER AT EVERY BOOTH.**—There is something of interest or education in the large exhibit of technical displays. Stop and show your appreciation of the exhibitors' support in helping to make successful the 1951 Michigan Postgraduate Clinical Institute.
- **POSTGRADUATE CREDITS** are given to every MSMS member who attends the Michigan Postgraduate Clinical Institute and the Heart Day.
- **HEART DAY.**—Saturday, March 17—See program, Page 76.

NO REGISTRATION FEE

- **SAVE AN ORDER FOR THE EXHIBITOR AT THE MICHIGAN POSTGRADUATE CLINICAL INSTITUTE.**
- **PARKING.**—Do not park on Detroit's streets. Rates for inside parking, supplied us by three of the several garages written for this information, are as follows:
  DAC Garage, 1754 Randolph St., opposite DAC, hourly rate 30c for first hour, 10c each additional hour; daily rate, $1.50; three-day rate, $4.50; weekly rate, $9.00. In and out privileges on the daily, three-day rate and weekly rate. Delivery to hotel.
  Grand Circus Garage, Adams Ave. at Randolph, 5 hours, 80c; 10 hours, $1.05; 1 day (24 hours), $1.50; 1 week, $9.00 (includes in and out service any time, day or night). Delivery to hotel.
  Book Tower Garage, Inc.—Daily rates 50c first hour, 10c each additional hour; minimum $2.00 for 24 hours; weekly rate $10.00. Delivery to hotel.
- **INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE** will be found at the Michigan Postgraduate Clinical Institute. All subjects on the Institute Program are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

- **SCROLL TO LUNETTE I. POWERS, M.D., MUSKEGON.**—Chosen by the Michigan State Medical Society as "Michigan's Foremost Family Physician of 1950," Dr. Powers will be honored on Wednesday, March 14 at the evening meeting when a Scroll emblematic of her new title will be presented to her.

- **MEETINGS OF SPECIAL SOCIETIES, ALUMNI AND AUXILIARY GROUPS.**

To date, arrangements have been made by the following groups to meet in Detroit coincident with the Michigan Postgraduate Clinical Institute:

1. The Michigan Proctologic Society will meet on Wednesday, March 14, Pan American Room, Book-Cadillac Hotel; preprandial hour at 6:30 p.m. and dinner at 7:00 p.m.

2. The Michigan Regional Committee on Fractures and Other Traumas of the American College of Surgeons will meet on Thursday, March 15, Suite 500 Book-Cadillac Hotel; luncheon from 12:00 noon to 2:00 p.m., followed by a symposium from 2:00 to 5:00 p.m.

3. The Michigan Branch of the American Academy of Pediatrics and the Detroit Pediatric Society are joint sponsors of a dinner meeting to be held in Founders Room of the Book-Cadillac Hotel, Wednesday, March 14, 1951. Cocktail hour at 6:30 p.m.; dinner at 7:30 p.m.

Harry Shwachman, M.D., Director of Clinical Laboratories at Children's Medical Center, Boston, and Associate in Pediatrics, Harvard Medical School, will speak on "The Coeliac Syndrome."

All doctors attending the Institute are cordially invited to attend the subscription dinner and to hear Dr. Shwachman's interesting talk. For dinner reservation write Wilfrid S. Nolting, M.D., 16840 E. Warren, Detroit 24.

4. The Michigan Society of Neurology and Psychiatry will meet on Thursday, March 15, David Whitney House; dinner at 6:30 p.m. followed by a scientific meeting at 8:00 p.m.

5. The Wayne University College of Medicine Alumni Association will meet for dinner at 6:30 p.m., English Room, Book-Cadillac Hotel, on Wednesday, March 14, 1951.

6. The Michigan Academy of General Practice will hold a meeting on Wednesday, March 14, 1951, 5:00 to 6:30 p.m., Reception Room, Book-Cadillac Hotel.

7. The Michigan Arthritis and Rheumatism Foundation will have a dinner and business meeting on Thursday, March 15, 1951, beginning at 6:30 p.m., Suite 500, Book-Cadillac Hotel.

8. The Michigan Pathological Society will hold a luncheon coincident with the Michigan Postgraduate Clinical Institute. Date, time and place of the luncheon will be announced at a later date.

9. The Woman's Auxiliary to the Michigan State Medical Society will hold a Board meeting on Wednesday, March 14, beginning at 10:00 a.m., Reception Room, Book-Cadillac Hotel.

PROGRAM

Wednesday, March 14, 1951

A.M.

7:30 **REGISTRATION—Fifth Floor**

8:30 **EXHIBITS OPEN—Fourth Floor**

FIRST ASSEMBLY

Grand Ballroom, Book-Cadillac Hotel

DAVID I. SUGAR, M.D., Detroit, *Chairman*

8:50 **Welcome**
C. E. UMPHREY, M.D., Detroit
President, Michigan State Medical Society
W. W. BABCOCK, M.D., Detroit
President, Wayne County Medical Society

9:00 **"Prematurity: (a) Prevention, and (b) Management of Delivery"**
GEORGE KAMPERMAN, M.D., Detroit



G. KAMPERMAN, M.D.



C. A. SMITH, M.D.

9:20 **"Management of the Premature Infant"**
CLEMENT A. SMITH, M.D., Boston, Massachusetts
Director of Research on the Newborn, Boston Lying-In Hospital; Associate Professor of Pediatrics, Boston Lying-In Hospital, Harvard Medical School; Chief, Infants' Division of Children's Hospital



C. D. BENSON, M.D.

9:40 **"Surgical Lesions in the Upper Abdomen in the Newborn and Infant"**
CLIFFORD D. BENSON, M.D., Detroit
Assistant Professor of Clinical Surgery at Wayne University College of Medicine



N. L. AVERY, M.D.

10:00 **INTERMISSION TO VIEW EXHIBITS**

11:00 **"Pancreatitis Clinical Manifestations and Treatment"**
NOYES L. AVERY, JR., M.D., Grand Rapids
Consultant Staff Blodgett Memorial Hospital, Grand Rapids; F.A.C.P. Visiting Staff, St. Mary's and Butterworth Hospitals, Grand Rapids



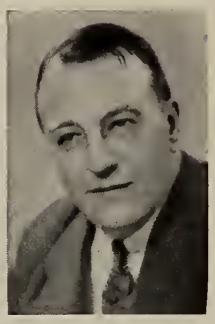
A. G. Goetz, M.D.



J. M. Sheldon, M.D.



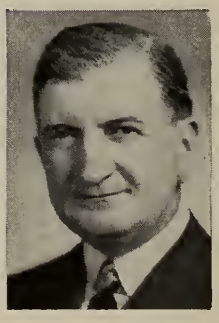
G. N. Raines, M.D.



D. A. Boyd, Jr., M.D.



I. F. Duff, M.D.



J. M. Robb, M.D.

11:20 **"Operative Treatment of Fractures of the Os Calcis"**
Angus G. Goetz, M.D., Detroit
Associate Professor Department of Clinical Orthopedic Surgery and Acting Head of Department Orthopedic Surgery, Wayne University College of Medicine; Chief of Division of Orthopedic Surgery, Harper Hospital

11:40 **"Antihistaminics"**
John M. Sheldon, M.D., Ann Arbor
Professor of Internal Medicine, University of Michigan Medical School

M

12:00 **End of First Assembly**

P.M.

12:15 **LUNCHEON, English Room, Book-Cadillac Hotel**
Raymond W. Waggoner, M.D., Ann Arbor, *Chairman*

1:15 **"Somatic Manifestations of Depression"**
Captain George N. Raines, M.C., U.S.N., Washington, D. C.
Head, Neuropsychiatric Branch, Bureau of Medicine and Surgery, Navy Department; Professor of Psychiatry and Director of the Department of Psychiatry, Georgetown University Medical Center; Director of American Board of Psychiatry and Neurology.

SECOND ASSEMBLY

Grand Ballroom, Book-Cadillac Hotel
Albert E. Heustis, M.D., Lansing, *Chairman*

P.M.

2:00 **"The Psychological Language of the Organs"**
David A. Boyd, Jr., M.D., Rochester, Minnesota
Consultant in Psychiatry and Professor of Psychiatry, University of Minnesota Graduate School, Mayo Foundation, Rochester, Minnesota

2:20 **"Administration of Anticoagulant Drugs"**
Ivan F. Duff, M.D., Ann Arbor
Assistant Professor of Internal Medicine, University of Michigan Medical School

2:40 **"Cysts and Fistulae of the Face, Mouth and Neck"**
J. Milton Robb, M.D., Detroit
Professor of Otolaryngology, Wayne University College of Medicine; Chairman of Section on Laryngology, Otology and Rhinology of the American Medical Association and President-Elect of the American Academy of Ophthalmology and Otolaryngology

3:00 **INTERMISSION TO VIEW EXHIBITS**

4:00 **"The Diagnosis and Treatment of Chronic Small Intestinal Disease"**
Everett D. Kiefer, M.D., Boston, Massachusetts

4:20 **CLINICAL X-RAY CONFERENCE**
Osborne A. Brines, M.D., Detroit
Professor of Pathology, Wayne University College of Medicine
Gordon B. Myers, M.D., Detroit
Professor of Medicine, Wayne University College of Medicine; Head, Department of Medicine, Detroit Receiving Hospital
Lawrence Reynolds, M.D., Detroit
Chief of Radiological Department of Harper Hospital; Chief of Staff of Harper Hospital; Professor of Radiology and Head of Department of Radiology, Wayne University College of Medicine

5:00 **End of Second Assembly**

ENTERTAINMENT NIGHT

Grand Ballroom, Book-Cadillac Hotel

P.M.

8:30 Presentation of scroll to Michigan's Foremost Family Physician for 1950—Lunette I. Powers, M.D., Muskegon
Response by Dr. Powers

8:30 DON LARGE and his FIVE GRENADIERS—Finest choral group of its kind in the business today. Five voices—varied repertoire of solos and quintette numbers—colorful wardrobe

9:00 p.m. to 1:00 a.m.—BATTLE OF MUSIC—THE OLD vs. THE NEW!

(a) THE OLD-TIMERS—Gay music for Square Dances and Quadrilles—with a caller for the sets who gives an outline of the steps of each dance—loads of fun for beginners and experts in Square Dancing

(b) REG THORNTON and his ORCHESTRA—Detroit's outstanding band, playing South American as well as the sweet numbers.

All registrants and their ladies are cordially invited to attend.

No admission fee—merely show your registration badge

HOST: MICHIGAN POSTGRADUATE CLINICAL INSTITUTE



O. A. Brines, M.D.



G. B. Myers, M.D.



L. Reynolds, M.D.

Thursday, March 15, 1951

Book-Cadillac Hotel

A.M.

8:30 REGISTRATION—Fifth Floor

EXHIBITS OPEN—Fourth Floor



W. O. Thompson, M.D.

THIRD ASSEMBLY

Grand Ballroom, Book-Cadillac Hotel

Richard M. McKean, M.D., Detroit, *Chairman*

9:00 "Androgens and Estrogens in General Practice"
Willard O. Thompson, M.D., Chicago
Clinical Professor of Medicine, University of Illinois College of Medicine; Managing Editor, "Journal of Clinical Endocrinology"; Editor, "Year Book of Endocrinology"; Editor, "American Lectures in Endocrinology"; President-Elect American Goiter Association

9:30 "Management of Edema in Obstetrics and Gynecology"
Willis E. Brown, M.D., Little Rock, Arkansas
Professor and Head, Department of Obstetrics and Gynecology, University of Arkansas School of Medicine

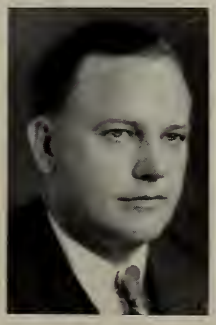
10:00 INTERMISSION TO VIEW EXHIBITS

11:00 "Pleural Effusion"
G. Thomas McKean, M.D., Detroit
Assistant Professor of Clinical Medicine, Wayne University College of Medicine; Associate Attending Physician at Harper and Receiving Hospitals, Detroit; Attending Consultant at Dearborn's Veterans Hospital and Herman Kiefer Hospital

11:20 "Anesthesia in Chest Surgery"
Warren K. Wilner, Jr., M.D., Ann Arbor
Assistant Professor of Anesthesiology; Acting Director of the Department of Anesthesiology, University of Michigan



W. E. Brown, M.D.



G. T. McKean, M.D.



B. R. Corbus, M.D.

11:40 "The Neglected Field of Minor Surgery"
Robert H. Denham, M.D., Grand Rapids
Consulting Staff of Blodgett Memorial Hospital and St. Mary's Hospital, Grand Rapids

M
12:00 End of Third Assembly

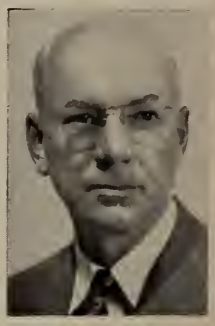


E. A. Graham, M.D.

P.M.
12:15 LUNCHEON, English Room, Book-Cadillac Hotel
Burton R. Corbus, M.D., Grand Rapids, *Chairman*

1:15 THE R. S. SYKES LECTURE
"Common Errors in the Diagnosis of Bronchogenic Carcinoma, with Special Reference to Virus Pneumonia"

Evarts A. Graham, M.D.
St. Louis, Missouri
Professor and Head of Department of Surgery, Washington University School of Medicine; and Surgeon - in - Chief of Barnes Hospital



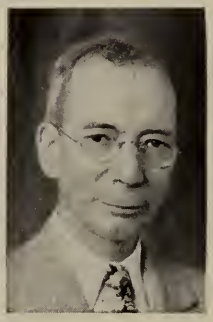
R. S. Sykes, D.D.S.



A. C. Curtis, M.D.

FOURTH ASSEMBLY

Grand Ballroom, Book-Cadillac Hotel
John M. Sheldon, M.D., Ann Arbor, *Chairman*



S. Gibson, M.D.

P.M.
2:00 "Contact Dermatitis"
Arthur C. Curtis, M.D., Ann Arbor
Professor and Director, Department of Dermatology and Syphilology, University of Michigan Medical School

2:20 "The Recognition of Heart Disease in Children"
Stanley Gibson, M.D., Chicago
Emeritus Professor of Pediatrics, Northwestern University Medical School, and Consultant in Cardiology, Children's Memorial Hospital



J. E. Gordon, M.D.

2:40 "Epidemiology of Accidents"
John E. Gordon, M.D., Boston, Massachusetts
Professor of Preventive Medicine and Epidemiology, Harvard School of Public Health

3:00 INTERMISSION TO VIEW EXHIBITS

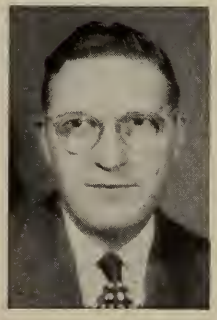


A. D. Ruedemann, M.D.

4:00 "Exophthalmos"
Albert D. Ruedemann, M.D., Detroit
Professor of Ophthalmology, Wayne University College of Medicine, Head Division of Ophthalmology, Harper Hospital; Chief Ophthalmologist Receiving Hospital, Detroit

4:20 CLINICAL PATHOLOGICAL CONFERENCE
Arthur C. Curtis, M.D., Ann Arbor
Professor and Director, Department of Dermatology and Syphilology, University of Michigan Medical School

Adam J. French, M.D., Ann Arbor
Associate Professor of Pathology, University of Michigan Medical School



A. J. French, M.D.

5:00 End of Fourth Assembly

—— No Thursday Night Program ——

Friday, March 16, 1951
Book-Cadillac Hotel

A.M.

8:30 REGISTRATION—Fifth Floor

EXHIBITS OPEN—Fourth Floor



H. J. KULLMAN, M.D.

FIFTH ASSEMBLY

Grand Ballroom, Book-Cadillac Hotel
JAMES H. FYVIE, M.D., Manistique, *Chairman*

9:00 "Frequency of Colitis in Veterans"
HAROLD J. KULLMAN, M.D., Dearborn
Associate Professor of Clinical Medicine, Wayne University College of Medicine

9:15 "The Medical and Surgical Approach to Infectious Diseases of the Colon"
RUSSELL S. BOLES, M.D., Philadelphia
Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania; Chief Medical Service, Philadelphia General Hospital; Past President American Gastroenterology Association; Past Chairman Section on Gastroenterology and Proctology, American Medical Association

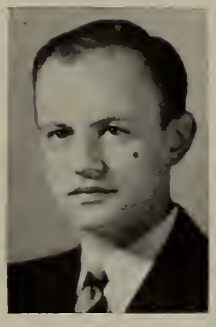


R. S. BOLES, M.D.



R. M. NESBIT, M.D.

9:40 "Dietary Therapy in Pregnancy and its Complications"
ALLAN C. BARNES, M.D., Columbus, Ohio
Chief Department of Obstetrics and Gynecology, Ohio State University College of Medicine



A. C. BARNES, M.D.

10:00 INTERMISSION TO VIEW EXHIBITS

11:00 "The Diagnosis and Management of Croup at Infancy"
HARRY A. TOWSLEY, M.D., Ann Arbor

11:20 "Congenital Valve Obstructions in the Urinary Tract of Infants"
REED M. NESBIT, M.D., Ann Arbor
Professor of Surgery, Section of Urology, University Hospital; Chief of Section of Urology, University Hospital and Professor of Surgery, University of Michigan Medical School, Ann Arbor
RICHARD L. THIRLBY, M.D., *Co-Author*

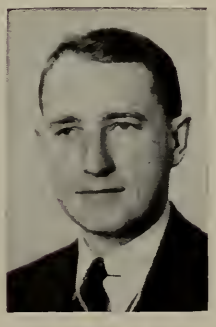


F. C. SWARTZ, M.D.

11:40 "The Geriatric Philosophy"
FREDRICK C. SWARTZ, M.D., Lansing
Chief of Medicine, St. Lawrence Hospital

M.

12:00 End of Fifth Assembly



F. D. MOORE, M.D.

P.M.

12:15 LUNCHEON, English Room, Book-Cadillac Hotel
CLARENCE E. UMPHREY, M.D., Detroit, *Chairman*

1:15 "The Metabolic Response to Surgery"
FRANCIS D. MOORE, M.D., Boston, Massachusetts
Moseley Professor of Surgery, Harvard Medical School; Surgeon-in-Chief Peter Bent Brigham Hospital



J. W. Conn, M.D.



W. P. Holbrook, M.D.



C. A. Ragan, Jr., M.D.



H. E. Ungerleider, M.D.



F. J. Smith, M.D.



A. E. Dorfman, M.D.

SIXTH ASSEMBLY

Grand Ballroom, Book-Cadillac Hotel

John E. Manning, M.D., Saginaw, *Chairman*

2:00 **ACTH and Cortisone Panel**

Jerome W. Conn, M.D., Moderator, Ann Arbor

Professor of Internal Medicine, University of Michigan; Director, Division of Metabolism and Endocrinology, University Hospital, Ann Arbor

W. Paul Holbrook, M.D., Tucson, Arizona

Senior Medical Consultant, St. Mary's Hospital and Tucson Medical Center; Medical Consultant to Surgeon General, U.S.A.F.

Francis D. Moore, M.D., Boston, Massachusetts

Charles A. Ragan, Jr., M.D., New York, New York

Assistant Attending Physician Presbyterian Hospital, New York; Secretary-Treasurer American Rheumatism Association

3:00 **FINAL INTERMISSION TO VIEW EXHIBITS**

3:30 **ACTH and Cortisone Panel (continued)**
Doctors Conn, Holbrook, Moore, and Ragan

4:30 **Question and Answer Period on ACTH and Cortisone Panel**

5:00 End of Sixth Assembly and of the Institute

MICHIGAN HEART ASSOCIATION

Second Annual Heart Day Saturday, March 17, 1951

A.M.

9:00 "920 Cases of Myocardial Infarction—A Study of the Acute Phase"
F. Janney Smith, M.D., Henry Ford Hospital, Detroit

10:00 "Blood Lipids and Human Arteriosclerosis"
Harry E. Ungerleider, M.D., Medical Director, The Equitable Life Assurance Society, New York.

11:00 "The Present Status of ACTH and Cortisone in Rheumatic Fever"
Albert Dorfman, M.D., The University of Chicago, Chicago, Illinois

M

12:00 **LUNCHEON**
Second Annual Meeting of Members of the Michigan Heart Association.
All members of the Michigan State Medical Society are cordially invited to attend.

For list of exhibitors at the Institute, see Page 93

You Can Assure... adequate water, bulk, dispersion

with METAMUCIL...

Smoothage Therapy in Constipation



ADEQUATE WATER...

Metamucil powder is taken with a full glass of cool liquid and may be followed by another glass of fluid if indicated. This assures the desired water volume conducive to physiologic peristalsis.

ADEQUATE BULK...

Mixed with water, Metamucil produces a large quantity of a bland, plastic, water-retaining bulk.

ADEQUATE DISPERSION...

This bland mass mixes intimately with the intestinal contents and is extended evenly throughout the digestive tract.

Metamucil does not interfere with the digestion or the absorption of oil-soluble vitamins; is nonirritating; does not interfere with water balance; does not cause straining or impaction.

METAMUCIL® is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. G. D. Searle & Co., Chicago 80, Illinois.

SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Second Michigan Industrial Health Day

Wednesday, April 4, 1951

Rackham Memorial Building
100 Farnsworth Avenue
Detroit 12, Michigan

Sponsored by the Michigan Association of Industrial Physicians and Surgeons; Wayne University College of Medicine; Michigan State Medical Society's Committee on Industrial Health; Division of Industrial Health of the Michigan Health Dept.; Medical School of the University of Michigan; Michigan State Association of Industrial Nurses; the School of Public Health of the University of Michigan, and the Michigan Industrial Hygiene Society.

General Chairman for the Day
Carl Hanna, M.D., Detroit

PROGRAM

Morning Session

Presiding, Clifford H. Keene, M.D., Medical Director, Kaiser-Frazer Corp., Willow Run, Michigan.

A.M.

9:00 **Registration:** Rackham Memorial Bldg., Main Auditorium.

9:30 **"Introduction to the Day's Activities."**
Clifford H. Keene, M.D., Medical Director, Kaiser-Frazer Corp., Willow Run, Michigan.

9:40 **"New Developments in Industrial Surgery."**
Harry E. Mock, Jr., M.D., Northwestern University College of Medicine, Department of Surgery, Chicago, Illinois.

10:00 **"Developments in Industrial Nursing."**
Helen De Coursey, R.N., Kelsey Hayes Wheel Company, Detroit.

10:20 **"The Rising Toll of Obesity in Industry."** America's number one health problem.
Alfred W. Pennington, M.D., Medical Department, E. I. DuPont Co., Wilmington, Delaware.

10:40 **"Beryllium Poisoning."** The newest major occupational disease.
Oscar A. Sander, M.D., Marquette University College of Medicine, Milwaukee, Wisconsin.

11:00 **"International Industrial Medicine."** The United States is carrying Industrial Medicine to other lands.
Robert C. Page, M.D., General Medical Director, Standard Oil Co. of New Jersey, New York, N. Y.

11:45 **Discussion Leader:**
Gordon H. Scott, Ph.D., Dean of Medical College, Wayne University, Detroit, Michigan.

P.M.

12:00-2:00 **Lunch Period:** (The dining-rooms of nearby Sheraton Hotel are readily accessible)

Afternoon Session

Presiding, Harley L. Krieger, M.D., Medical Director, Ford Motor Co., Dearborn, Michigan.

P.M.

1:30 **"Defenses Against Atomic Bombing."**
Donald S. Leonard, Commissioner, Michigan State Police, East Lansing, Michigan.

2:30 **Medical Aspects of Atomic Warfare**

1. **"Effects on Personnel"**
   George A. Hardie, M.D., Washington, D. C., Assistant to the Chief (in charge of Industrial Health activities) Medical Branch, U. S. Atomic Energy Commission.
2. **"Management of Injuries"**
   Charles L. Dunham, M.D., Washington, D. C., Chief, Medical Branch, U. S. Atomic Energy Commission, Washington, D. C.
3. **"Specific Problems for the Industrial Physician"**
   James H. Sterner, M.D., Rochester, N. Y., Associate Medical Director, Eastman Kodak Company.

4:00 **Discussion Leader and Demonstrator of Radio Activity Measurement Equipment.**
Homer S. Myers, Vice President, Radioactive Products, Inc., Detroit, Michigan.

* * *

4:30 **Annual Business Meeting**—Michigan Association of Industrial Physicians and Surgeons.
Presiding, Joseph L. Zemens, M.D., President, Michigan Association of Industrial Physicians and Surgeons, Detroit, Michigan.

Evening Sessions

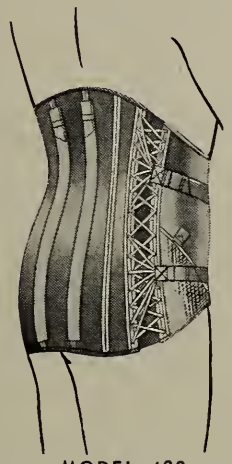
6:00 **Cocktails:** Available in the Sheraton Hotel.

7:00 **Annual Banquet (informal)**
Toastmaster—Clarence E. Umphrey, M.D., Detroit, President, Michigan State Medical Society.

"The Industrial Worker's Better World."
Dr. Lillian M. Gilbreth, Consulting Industrial Engineer, Montclair, New Jersey.
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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

A new antibiotic which may well rival the sulfas, penicillin and streptomycin in its effectiveness against disease has been discovered in the Laboratories of the Michigan Department of Health.

The antibiotic is a product of a peach-colored soil mold, the 3,590th of 17,000 molds tested in the Department's four-year-old antibiotic research program.

Based on its structural form, it has been given the name synnematin (pronounced sin NEE ma tin) which means "fused thread."

Synnematin kills the organisms of several diseases in test tubes and in animals. Tests in humans have not been done.

The new antibiotic is effective against diseases caused by certain Salmonella organisms for which no present adequate treatment exists. Salmonella organisms are the cause of certain types of diarrhea, including the type of infant diarrhea which has caused the deaths of numerous Michigan infants in hospital nurseries. The Salmonellas are also responsible for certain types of septicemia and for typhoid fever.

In the test tube it appears that synnematin may also be effective against tuberculosis, undulant fever and certain streptococcus organisms.

Credited with the discovery are four of the Department's young researchers: Dr. Russell Gottshall, bacteriologist; Dr. John M. Roberts, mycologist; Dr. Lucile Portwood, chemist; and Jay C. Jennings, bacteriologist.

While much additional testing in animals and much purification remains to be done before production for human use can be undertaken, the Department has applied for a patent on the antibiotic in the name of the State of Michigan.

During the summer of 1950 one of the most unique chest x-ray surveys in the history of tuberculosis control was conducted in Michigan through the co-operation of the Michigan Department of Health and other agencies. Targets for the survey were 12,000 merchant seamen assigned to ships of 37 lake steamship companies. X-raying was done as ships went through the Sault Ste. Marie locks, considered one of the most important installations in the Nation's planning for defense. Positive findings were reported by radio telephone to ships under way.

The United States Public Health Service, the Great Lake Carriers Association, and the United States Army Corps of Engineers were the other co-operating agencies in the survey. Except for provision of an x-ray unit by the Public Health Service, all costs of the program were defrayed by the Lake Carriers Association, which initiated the survey program.

Because of the imposition of more stringent security regulations for the Soo Locks, after the chest survey program was planned, a total of only 4,257 x-rays were taken. As only four men at a time were permitted to leave a ship while it was in the Locks, it was impossible to reach the goal of 12,000 x-rays in the time of the project.

Follow-up is not completed. However, a rate of tuberculosis findings of 18.6 per thousand was indicated. Tuberculosis findings were as follows:

Minimal	*Moderately Advanced*	*Far Advanced*	*Other Tbc.*	*Total Tbc. Findings*
50	22	6	1	79

There were forty-two nontuberculosis abnormals indicated.

Included in the survey were Soo Locks personnel. No chest abnormalities were found in this group.

* * *

More than 800 people interested in the field of public health in Michigan attended the thirtieth annual Michigan Public Health Conference in Grand Rapids. Of these, 530 were registered conference participants.

New drugs and diagnostic procedures, the constructive side of atomic energy and the role of public health people in civilian defense were discussed as well as mutual problems.

The Michigan Association of Public Health Dentists and Dental Hygienists were accepted as affiliates of the Michigan Public Health Association at the conference.

The Michigan Public Health Association endorsed proposed legislation to provide more state funds for local health departments. Both the Michigan Public Health Association and the Michigan Health Officers Association passed resolutions commending Dr. Albert Heustis, State Health Commissioner, for his leadership in public health in Michigan and pledging their continued support.

New Michigan Public Health Association officers are: President, Marjorie Delavan, Chief, Section of Education, Michigan Department of Health; President-Elect, Patricia Walsh, R.N., Director of Nursing, Washtenaw County Health Department, Ann Arbor; Vice President, H. E. Cope, M.D., Chief, Section of Clinical Pathology, Michigan Department of Health; Secretary-Treasurer, LaRue Miller, Chief, Environmental Sanitation Section, Michigan Department of Health; Representative on the Governing Council, American Public Health Association, George C. Stucky, M.D., Director, Eaton County Health Department.

The Michigan Health Officers' Association elected: President, M. R. French, M.D., Director, Branch-Hillsdale Health Department; Vice President, O. D. Stryker, M.D., Director Macomb County Health Department; Secretary, Vergil Slee, M.D., Director, Barry County

(Continued on Page 82)

High Vitamin B_{12} Content... Another Reason for Liberal Meat Intake

According to rapidly accumulating clinical and laboratory observations, the daily ingestion of liberal quantities of meat can effect profound physiologic benefits due to the significant content of vitamin B_{12}, not only in liver and kidney, but also in muscle meats.

Muscle meat is a good source of the newly isolated vitamin B_{12}; liver and kidney are especially high in their vitamin B_{12} content, while plant foods are negligible sources of this nutrient.[1] By rat assay, the minimum amounts of vitamin B_{12} in muscle meat range from 0.5 to 3 mcg. per 100 Gm.; minimum values for beef liver and kidney are 15 and 20 mcg., respectively.[2]

B_{12} is among the most potent of known microbiologically active substances.[3] Animal studies indicate that it increases the ability of the normal mammal to utilize protein.[4] With a high protein diet, 0.01 mcg. of vitamin B_{12} per day was found to increase significantly the growth rate of B_{12} deficient rats. In another study, growth response of B_{12} depleted rats was proportional to the B_{12} in the ration within the critical range of 0.025 to 0.1 mcg. per rat day.[5]

About 1 mcg. of vitamin B_{12} daily, administered intramuscularly, constitutes an effective dose in pernicious anemia. In a recent clinical study of young children manifesting vitamin B_{12} deficiency as evidenced by malnutrition and growth failure, oral administration of 10 mcg. of vitamin B_{12} daily for eight weeks induced marked responses in growth; notable increases in vigor, alertness and better general behavior; and improved appetite.[6]

Here again is further evidence of the broad, over-all nutrient contribution meat makes to the dietary. Eaten two or three times daily, it supplies not only generous amounts of high quality protein, but also significant quantities of vitamin B_{12} and other essential B complex vitamins, and of iron.

---

(1) Schweigert B. S.: Significance of Vitamin B_{12} and Related Factors, J. Am. Dietetic Assoc. *26*:782 (Oct.) 1950.

(2) Lewis, U. J.; Register, U. D.; Thompson, H. T., and Elvehjem, C. A.: Distribution of Vitamin B_{12} in Natural Materials, Proc. Soc. Exper. Biol. & Med. *72*:479 (Nov.) 1949.

(3) Shorb, M. S.: Activity of Vitamin B_{12} for the Growth of Lactobacillus lactis, Science *107*:397 (Apr. 16) 1948.

(4) Hartman, A. M.; Dryden, L. P., and Cary, C. A.: The Role and Sources of Vitamin B_{12}, J. Am. Dietetic Assoc. *25*:929 (Nov.) 1949.

(5) Frost, D. V.; Fricke, H. H., and Spruth, H. C.: Rat Growth Assay for Vitamin B_{12}, Proc. Soc. Exper. Biol. & Med. *72*:102 (Oct.) 1949.

(6) Wetzel, N. C.; Fargo, W. C.; Smith, I. H., and Helikson, J.: Growth Failure in School Children as Associated with Vitamin B_{12} Deficiency—Response to Oral Therapy, Science *110*:651 (Dec. 16) 1949.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

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(Continued from Page 80)

Health Department; Treasurer, C. A. Neafie, M.D., Director, Pontiac Health Department.

* * *

The largest volume of work ever done in its history was completed by the Division of Laboratories of the Michigan Department of Health in the calendar year 1950. Approximately 1,125,765 diagnostic tests were performed to assist physicians in identifying disease and 3,410,206 doses of serums and vaccines were produced and distributed for the prevention, diagnosis or treatment of illness in Michigan people. The increase occurred despite a reduction in the operating budget of the Laboratories and despite elimination of certain routine laboratory procedures.

* * *

"Michigan's Health at the Half Century," an article in the December issue of *Michigan Public Health,* gives a summary of the activities of the Michigan Department of Health during the calendar year 1950. Copies of the year-end summary issue or a year's subscription to the magazine are available without cost from the Department.

* * *

Robert Hall, M.D., Director of the Isabella County Health Department since April, 1947, has resigned effective January 1, 1951. He plans to enter private practice in Mt. Pleasant.

BIOLOGICALS AND BIOCHEMICALS

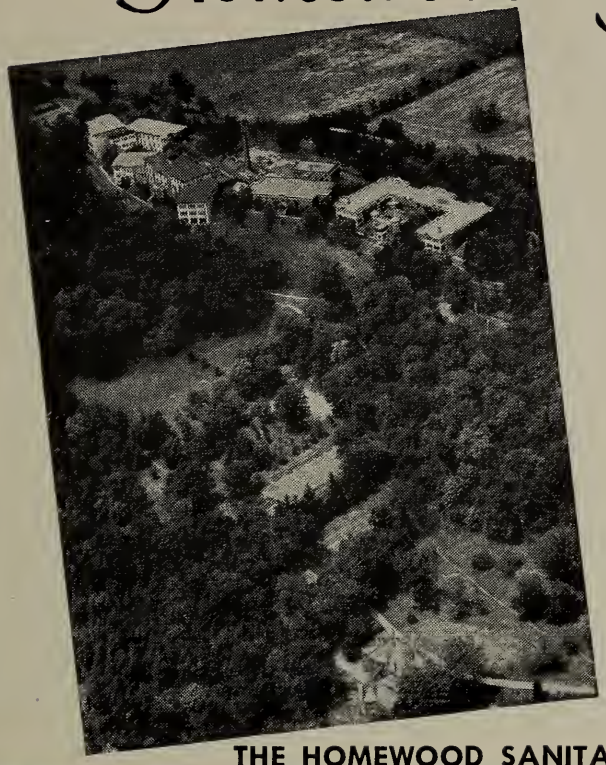
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Medical Supt.

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. . . . . NEWS MEDICAL

MT. CARMEL HOSPITAL CLINIC DAY

Wednesday, January 31, 1951

9:00 a.m. Maurice H. Seevers, M.D., Professor of Pharmacology, University of Michigan, Ann Arbor
"Recent Advances in Analgesia and Analgetic Drugs"

9:45 a.m. Speaker to be announced.

10:30 a.m. Ralph Reis, M.D., Professor of Obstetrics and Gynecology, Northwestern University, Chicago.
"The Management of Prolonged Labor."

11:15 a.m. William Boyd, M.D., Professor of Pathology, University of Toronto, Toronto, Ontario.
"Pathology of Intercellular Substance."

12:30 p.m. Complimentary Luncheon.

2:00 p.m. Mitchell I. Rubin, M.D., Professor of Pediatrics, University of Buffalo, Buffalo, N. Y.
"Renal Failure in Childhood."

2:45 p.m. Warren O. Nelson, M.D., Professor of Anatomy, University of Iowa, Iowa City.
"Interpretation of the Testicular Biopsy."

3:30 Speaker to be announced.

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1951

Anatomy .....(Thursdays) Feb. 15-May 31
Pediatrics .....Feb. 28-March 3
Internal Medicine
Diseases of the Gastro-Intestinal Tract.....April 23-27
Diseases of the Heart .....March 19-23
Rheumatic Disease .....April 2-6
Recent Advances in Therapeutics.....May 3-5
Endocrinology and Metabolism.....Mar. 26-30
Diseases of the Blood.....April 16-20
Allergy .....April 9-13
Electrocardiographic Diagnosis....Aug. 27-Sept. 1
Neurology, Clinical .....May 14-17
Obstetrics and Gynecology .....Feb. 19-Mar. 3
Ophthalmology Conference .....April 23-25
Roentgenology, Diagnostic .....April 16-20

For further information about the above listed courses, write to

Howard H. Cummings, M.D., Chairman
Department of Postgraduate Medicine
2040 University Hospital
Ann Arbor, Michigan

The Jackson County Medical Society sponsored a dinner in Jackson on December 12 at which the members of the County Board of Supervisors, the City Commission, the Mayor, the City Manager, and the Editor of the *Jackson Citizen Patriot* were guests. The meeting was addressed by A. E. Heustis, M.D., State Commissioner of Health, who spoke on "The Workings and Structure of a City-County Health Unit."

* * *

The Michigan Health Officers Association, at its November 30 annual meeting in Grand Rapids, elected M. R. French, M.D., Coldwater, as its new President (Dr. French is Secretary of the MSMS Section on Public Health and Preventive Medicine).

O. D. Stryker, M.D., of Mt. Clemens was chosen as Vice President, Vergil N. Slee, M.D., of Hastings was re-elected as Secretary, and C. A. Neafie, M.D., Pontiac, is the Treasurer. On the Board of Directors are W. B. Prothro, M.D., Kalamazoo; V. K. Volk, M.D., Saginaw; Clifford Merritt, M.D., Lake City, and Ralph TenHave, M.D., Holland.

* * *

Officers of the Michigan Public Health Association, elected in Grand Rapids on November 30 at the 30th annual session, are: President: Marjorie Delavan, Lansing; President-Elect, Patricia Walsh, Ann Arbor; Vice President, H. E. Cope, M.D., Lansing; Secretary-Treasurer, LaRue Miller, Lansing, and Representative on Governor's Commission on MPHA, G. C. Stucky, M.D., Charlotte.

* * *

The 11th Annual Essay Contest of the Mississippi Valley Medical Society will be held in 1951 for the best unpublished essay on any subject of general medical interest. The Society offers a cash prize of $100, a gold medal, and a certificate of award. For the essay rated as second and third best, certificates of merit are also granted. For full information, write Harold Swanberg, M.D., Secretary, 209-224 W.C.U. Building, Quincy, Ill.

* * *

Unqualified satisfaction and success marked the Postgraduate Clinical Seminar in color television presented in Detroit on November 15-16, under the auspices of the Academy of General Practice of Wayne County, the Wayne County Medical Society, the Grace Hospital, and Smith, Kline and French Laboratories of Philadelphia. Over 400 doctors of medicine from Michigan and Northern Ohio and Western Canada viewed the latest methods of treating some of the ailments they meet most often, via discussion and clinical programs over color television. The meeting was held in the

(Continued on Page 86)

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(Continued from Page 84)

Crystal Ballroom of the Masonic Temple. Operations were televised from the Grace Hospital, Detroit.

* * *

Charles B. Shuman, President of the Illinois Agricultural Association, called upon farmers to join other groups in demanding the ouster from office of Agriculture Secretary Brannan and Federal Security Administrator Ewing. In a speech before the Association's 36th annual meeting in Chicago, Mr. Shuman said that these two members of the Washington administration were responsible for sponsoring plans to socialize agriculture and medicine, respectively.

* * *

MSMS President C. E. Umphrey, M.D., Detroit, addressed the Livingston County Medical Society on December 1 at Michigan State Sanatorium at Howell. His subject was "Medical Strategy." Doctor Umphrey also addressed the Northeastern Lions Club of Detroit on November 27. His subject was "National Confusion."

* * *

Leo H. Bartemeier, M.D., Detroit, has been apointed a member of the National Advisory Mental Health Council to the National Institute of Health, Public Health Service, Federal Security Agency.

* * *

The University of Michigan School of Public Health, Ann Arbor, has been granted $25,000 for the project "Instruction for the Prevention of Cancer," by the National Cancer Institute of the Public Health Service, Federal Security Agency.

Wayne University College of Medicine (M. Mason Guest, M.D.) has also received a grant of $5,022 from the same source for "An Investigation of the Fibrinolytic Enzyme and Inhibitor Systems in Blood and Urine, and the Relationship to Cancer." These are two of the special 17 cancer control grants made by the National Cancer Institute, totaling $324,525.

* * *

The University of Michigan (Aaron Bunsen Lorner, M.D., Ann Arbor) has received a grant of $8,748 from the National Cancer Institute, Public Health Service, Federal Security Agency, for "An Investigation of the Bio-chemistry, Development and Diagnosis of Melanomas."

From the same source, the **Detroit Institute of Cancer Research** (Ralph M. Johnson, M.D.) received $6,000 for "Lipid (fats) Studies in Relation to Carcinogenesis."

* * *

The Michigan State Medical Technicians Society recently elected the following officers: President, Eleanor Hulton, Saginaw; Vice President, Dorothy Hitchcock, East Lansing; Recording Secretary, Mrs. Betty Gillette, Flint; Corresponding Secretary, Ruth Hetzer, Battle Creek; and, Treasurer, Angela Serefine, Detroit.

* * *

The 1950-1951 Officers of the Michigan State Medical Assistants Society, elected at its meeting of September 20, 1950, are: President: Mrs. Irma Nelson, Lansing;

(Continued on Page 88)

ANNUAL CLINICAL CONFERENCE

CHICAGO MEDICAL SOCIETY

March 6, 7, 8, 9, 1951 • Palmer House, Chicago

A conference planned to keep physicians abreast of the new things which are developed from year to year.

Special feature of the 1951 Conference—DAILY TEACHING DEMONSTRATION PERIODS from 11:00 to 12:00 noon and 1:30 to 3:00 P.M. Demonstrations will cover:

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- Patients Treated with ACTH and Cortisone
- Dermatologic Clinic
- Organization of a Blood Bank
- Neurological Clinic
- Sterility Tests
- Speech Without Larynx
- Proper Application of Casts and Splints in Fractures
- Local Anesthesia
- Fluid and Electrolytic Balance in Surgery
- Use and Misuse of Obstetrical Forceps
- Common Problems in X-Ray Interpretations
- Laboratory Tests (Diabetes, Proper use of Insulin, Prothrombin Tests)

Thirty-four outstanding teachers and speakers will present half-hour lectures on subjects of interest to both general practitioner and specialist.

Four PANELS on timely topics

Scientific exhibits worthy of real study and helpful and time-saving technical exhibits.

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(Continued from Page 86)

President-Elect, Miss Freda Heidelberger, Detroit; Recording Secretary, Miss Phyllis Marquardt, Kalamazoo; Corresponding Secretary, Mrs. Leah Rhodes, Lansing; and, Treasurer, Mrs. Elizabeth Peck of Detroit.

* * *

The Ingham County Medical Society (Lansing) took action to pay the state and AMA medical dues of members of the Ingham County Medical Society who are on military duty, during their periods of service.

* * *

The Lansing Life Underwriters Association adopted a resolution against compulsory health insurance on October 11, 1950. The resolution reads:

"Resolved, by the unanimous vote of the membership of the Lansing Life Underwriters Association of Lansing, Michigan, at its regular monthly meeting, October 11, 1950, that this Association is opposed to any form of legislation to provide Compulsory Insurance for Health, Hospital Care, Medical or Surgical Services, to be controlled or administered by any Federal Government Agency, and

"Be it further resolved, that a copy of this Resolution be transmitted to our Representatives and Senators in the Congress of the United States; and that they be and hereby are respectfully requested to use every effort at their command to prevent the enactment of any legislation for the establishment of any plan of compulsory health insurance."

* * *

The Ingham County Medical Society Bulletin recently published a statement on the medical care program and health facilities available in Ingham County (Lansing). The statement was in the form of a letter addressed to the Ingham County Citizens Committee on Children and Youth (part of the White House Conference on Youth). The author of the statement was Josef Rozan, M.D., Lansing, President-Elect of the Ingham County Medical Society.

* * *

The Association of State and Territorial Health Officers, at a meeting held recently in Washington, reaffirmed its opposition to national compulsory health insurance and renewed its demand for creation of a federal department of health with cabinet status, under direction of a career physician in public health.

* * *

The Ingham County Medical Society Bulletin publishes a roster of its membership, annually (in the November number).

* * *

The Medical Protective Company's Attorney, Harry W. Ginty, journeyed from Fort Wayne to Saginaw to address the Saginaw County Medical Society at its general meeting of November 28, 1950.

* * *

The Bulletin of the Saginaw County Medical Society lists the birthdays of all members, monthly.

* * *

Health Scheme Is Death Service.—The Bevan health scheme was branded as the "National Death Service" by Sir Herbert Williams, Conservative M.P., at New-castle-on-Tyne yesterday.

(Continued on Page 90)



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(Continued from Page 88)

"Taking the first two years of the National Health Service, deaths, increased by 88,000," he said. "If the service is responsible for this increase in mortality, then it has killed more people in two years than the 60,000 civilians who were killed by Hitler in the blitz."

Solution to the problem of overcrowded doctors' surgeries, he suggested, was a levy of six-pence for every visit by a patient.—From "The London Mail," published in *The Bulletin,* Genesee County Medical Society, November, 1950.

* * *

Sees State Medicine in Britain Getting Worse.—Miss Elizabeth Wilson, who has been studying and writing on compulsory health insurance for many years, just returned from a three-month investigation of the British system and found conditions there getting worse instead of better.

"Three out of four persons interviewed criticized it severely."

"The people who have not used the service resent the deduction of a tax for it every week."

"Doctors frequently see as many as ninety patients in three hours."

"Many doctors and dentists resent their lack of freedom. A doctor has to apply to the local executive council for permission to go on an extended vacation, to move from one house to another, or even change his hours of consultation."—*Bulletin,* Berrien County Medical Society, November, 1950.

* * *

Selective Service has three boards of appeal, composed of a doctor of medicine, an attorney, an industrialist, a representative of labor, and a representative of agriculture.

R. R. McCrumb, M.D., of Lansing, C. D. Monroe, M.D., of Jackson, and Josef Rozan, M.D., of Lansing, are the medical representatives of the three boards of appeal to Selective Service of Michigan.

* * *

MSMS Annual Session Speakers.—Three hundred and twenty-five (325) guest essayists from out of Michigan have been featured on the Assembly programs at MSMS Annual Sessions from 1936 through 1950, inclusive. Of these, only thirty-eight were used more than once in that fifteen-year period.

* * *

Important meetings you will want to attend:

1. Michigan Postgraduate Clinical Institute—Detroit, Wednesday, Thursday, Friday, March 14-15-16, 1951. (See detailed Program on Pages 70-76.)
2. Michigan Heart Day (sponsored by Michigan Heart Association)—Detroit, Saturday, March 17, 1951. (Book-Cadillac Hotel.)
3. Michigan Industrial Health Day—Detroit, April 4, 1951. (Rackham Building.)
4. American Medical Association Annual Session—Atlantic City, June 11-15, 1951.
5. MSMS Annual Session—Grand Rapids, September 26-27-28, 1951.

(Continued on Page 92)

Leitz

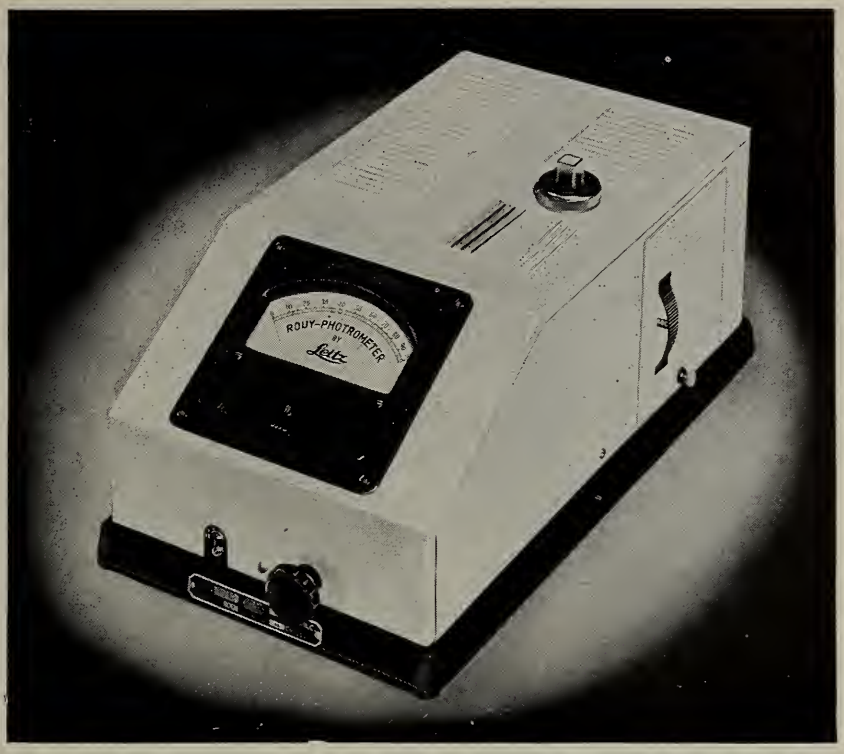
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(Continued from Page 90)

R. S. Sykes, D.D.S., Muir, Michigan, is the sponsor of the annual Sykes Lecture presented on the occasion of the Michigan Postgraduate Clinical Institute. This year the Sykes Lecture will be presented on Thursday, March 15, in the English Room of the Book-Cadillac Hotel, Detroit, as a feature of the Thursday luncheon. Evarts A. Graham, M.D., St. Louis, Missouri, the 1951 lecturer, will speak on "Common Errors in the Diagnosis of Broncho-Genic Carcinoma."

Sixty-day billing clause in Afflicted and Crippled Children Laws.—Payment to physicians under these two Michigan Acts is governed by a sixty-day billing clause. This is spelled out in the two laws which the Michigan Crippled Children Commission must administer.

The Crippled Children Act in Section 30 (Compiled Laws, Article 722.230) states: "This affidavit and statement shall in all instances be furnished not later than sixty days after the release or discharge of a child from the hospital."

The Afflicted Children Act in Section 14 (Compiled Laws, Article 722.314) states: "Payment shall be refused on any billing rendered sixty days or more after the discharge of the patient from the hospital."

Inasmuch as the Afflicted and Crippled Children Laws penalize doctors, by the loss of their fees, if they fail to bill promptly, the Michigan State Medical Society recommends that doctors of medicine taking care of crippled and of afflicted children should BILL MONTHLY for all services rendered, direct to the Michigan Crippled Children Commission, Hollister Building, Lansing, Michigan. Make this a habit—**bill monthly for all services rendered.** In the case of afflicted and crippled children, do not depend upon the hospital to do your billing for you. Send your statement direct to the MCCC.

* * *

The Central Medical Society of Wayne County is offering a $50 award to any hospital resident for the best original paper on a medical subject. The winner will present his manuscript before Central Medical Society at one of its Tuesday luncheon meetings at the Wayne County Medical Society Headquarters. For full information write: R. W. Monto, M.D., Chairman Program Committee, Central Medical Society, Wayne County, Henry Ford Hospital, Detroit.

* * *

One Hundred Books for the Doctor.—For many years William J. Stapleton, Jr., M.D., of Detroit has published in the *Detroit Medical News* a list of one hundred books that are of especial interest to the doctor. This year (in the December 4, 1950, number), the first book on his list is "Saw-Ge-Mah," the book which we reviewed during the year, written by one of our members, Louis J. Gariepy, M.D.

EXHIBITORS—1951 MICHIGAN POSTGRADUATE CLINICAL INSTITUTE

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Ciba Pharmaceutical Products, Inc., Summit, N. J.	67
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Hanovia Chemical & Mfg. Co., Newark, N. J.	47
J. F. Hartz Co., Detroit	42
H. J. Heinz Co., Pittsburgh, Pa.	56
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Mead Johnson & Co., Evansville, Ind.	71, 72
Medco Products Co., Tulsa, Okla.	35
Medical Aids Inc., Chicago	52
Medical Arts Surgical Supply Co., Grand Rapids, Mich.	64
Medical Protective Co., Fort Wayne, Ind.	11
Merck & Co., Inc., Rahway, N. J.	34
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* * *

Miss Eleanor Fulton, President of the Michigan Society of Medical Technologists, from Saginaw, presided at the meeting which was held at the Fort Shelby Hotel, in Detroit, on October 28, 1950. The program included papers by Dr. Harrison Nelson, of the Upjohn Company; Clarence L. Owen, M.D., Pathologist, Grace Hospital, Detroit; Jean M. Frailing, M.T. (ASCP), Grace Hospital; and Arnold R. Axelrod, M.D., Instructor in Medicine, Wayne University College of Medicine.

The spring meeting will be held in Battle Creek in April.

* * *

Preliminary figures indicate that the poliomyelitis death rate during the first eight months of this year was less than half the rate for the corresponding period last year, according to Federal Security Administrator Oscar R. Ewing.

The percentage of cases resulting in some degree of paralysis was approximately the same for both years, Mr. Ewing said.

Dr. Leonard A. Scheele, Surgeon General of the Public Health Service, pointed out that the estimated death rate for poliomyelitis during the first eight months of 1949 was 1.3 per 100,000 population, whereas a 10 per cent sample of mortality reports for the corresponding period this year indicates a rate of .6 per 100,000.

"The fact that the incidence of polio continued to increase this year for about three weeks after the close of the eight-month period," Dr. Scheele explained, "may result in a closer approximation of the death rates for 1949 and 1950 when the final tabulations have been made on both epidemics.

"However, both with respect to the number of cases and rates of death, the 1950 epidemic, now fortunately waning rapidly, was somewhat less severe than the record epidemic of 1949. Despite the fact that the incidence and the death rate this year appear to have been considerably lower than last year, the disease still continues to be an important public health problem.

"Thanks in very large measure to the work of the National Foundation for Infantile Paralysis and the public's support of this program, facilities and arrangements for treatment of severe cases have again met the test of a major epidemic. At the same time, reporting and diagnosis of cases has continued to improve.

"Research on this disease, spurred by the epidemics of the last several years, has been stepped up. The severe local outbreak in Paulding County, Ohio, was the subject of an intensive study of a Public Health Service team this year, while in laboratories over the country work is going forward in an effort to find how and under what conditions polio is transmitted."



Most cases of tuberculosis are in advanced stages when reported. Of 3,361 active cases of pulmonary tuberculosis reported in Michigan during 1949, *more than three of every four* were in advanced stages.

There were 1,297 far-advanced cases or 38.6 per cent of the total; 1,290 moderately advanced (38.4 per cent); 539 minimal (16 per cent); and 235 primary tuberculosis (7 per cent).

In tuberculosis control, the need for early diagnosis is still urgent.

MICHIGAN TUBERCULOSIS ASSOCIATION

No Doctors Inducted Yet.—As of the first of December, no Doctors have been called in the draft. Hundreds have been sent to their draft boards for physical examinations and classifications, but have not yet been ordered into service. Of 276 medical volunteers sent to active duty, 142 were eligible under the draft law.

* * *

The death rate for females is decreasing more rapidly than the rate for males, according to figures released in December by Federal Security Administrator Oscar R. Ewing. The announcement was based on estimates of 1949 mortality statistics compiled by the National Office of Vital Statistics, Public Health Service. Between 1940 and 1949, the death rate for the female population decreased 13 per cent while the rate for males decreased 7 per cent.

Mr. Ewing pointed out *that the death rate for every age group has been declining since 1940,* the greatest relative decreases occurring in the rates for the younger ages, the smallest in the older ages. The death rate for children one to fourteen years, for example, decreased 40 per cent between 1940 and 1949, while there was only a 10 per cent decrease in the death rate for persons in the age group sixty-five to seventy-four years.

The death rate for males is higher than that for females in each of the age groups. The largest relative difference between the rates for males and females in 1949 was in the age group fifteen to twenty-four years. In this age group, the rate for males exceeded the rate for females by 89 per cent. This is more than three times the percentage difference between the rates for males and females of this age in 1940. The percentage differences between the death rates for males and females in the other age groups over infancy have also increased but not as rapidly.

(This is a surprising accomplishment in face of the horrible state of medical service in America according to Mr. Ewing's blasts for socialized medicine.)

For the United States as a whole, 31,989 cases were reported to the Public Health Service during the first 11 months of this year, as compared with 41,442 for the corresponding period last year. These totals include the peak periods of both epidemics.

(Again, how does this report from Mr. Ewing's office comport with his often expressed opinion that socialized medicine is necessary. This was accomplished under the private enterprise system.)

* * *

Michigan Authors.—

Stuart C. Cullen, M.D., published an article, "The Rational Application of Sedative and Analgesic Drugs," originally in THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, and copied in *The General Practitioner of Australia and New Zealand,* September 15, 1950.

Manousos Angel Petrohelos, M.D., Ann Arbor, and **John Woodworth Henderson, M.D.,** of Ann Arbor, published an article, "The Ocular Findings of Intracranial Tumor: A Study of 358 Cases," in the *Transactions of the American Academy of Ophthalmology and Otolaryngology,* November-December, 1950.

Edmond L. Cooper, M.D., of Detroit, and **John L. Riker, M.D.,** of Alpena, pubished an article, "Malignant Lymphoma of the Uveal Tract," in the *Transactions of the American Academy of Ophthalmology and Otolaryngology,* November-December, 1950.

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*KITE, J. H.: Congenital metatarsus varus. J. Bone and Joint Surg., 32-A:500-506, July, 1950.



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Surgical Anatomy and Clinical Surgery, two weeks, starting February 19, March 19.
Surgery of Colon and Rectum, one week, starting March 5.
Basic Principles in General Surgery, two weeks, starting April 2.
Gallbladder Surgery, ten hours, starting April 23.
Fractures and Traumatic Surgery, two weeks, starting March 19.

GYNECOLOGY—Intensive Course, two weeks, starting February 19.
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PAIN RELIEF DURING LABOR

(Continued from Page 47)

safety and pain relief, resort to the "obstetrical" use of ether or the anesthetic gases. Indeed, it should be made clear—emphatically so—that regional anesthesia techniques are by no means a perfect answer to the problem of obstetrical pain. Their use is safe only when carried out under rigid precautions, and neglect or failure to observe either precautions or contraindications may well lead to trouble.

As physicians, our problem insofar as pain relief during labor is concerned may be summarized as follows:

1. Labor still has as its prime purpose the delivery of a living, healthy child with minimum damage, either physical or psychological, to the mother.

2. All forms of pain relief, no matter how important they appear, play a secondary role in the process of parturition.

3. The use of pain relief begins with an understanding of the several problems involved and leads finally to a selected program or pain relief technique.

4. As practicing physicians it behooves us well to evaluate our own facilities, both hospital and personnel, before deciding upon an obstetrical anesthesia method.

5. After a technique suitable to our requirements and facilities has been selected, it must then be learned. Do not switch from one technique to another willy-nilly.

6. Since no technique for obstetrical pain relief is entirely satisfactory, don't be hasty in throwing overboard, without trial, any carefully selected relief program.

7. Finally, remember that faulty obstetric judgment can invalidate any system for pain relief. With good obstetric judgment most acceptable plans for pain relief will give satisfactory results during labor.

DOCTORS DRAFT

The doctors who registered in the special draft of October 16, 1950, have almost all been processed. Of those examined in the Fifth Army Area, to which Michigan belongs, 24.88 per cent were rejected. In the Second Army Area, Washington, D. C., 32 per cent were rejected. The average for the whole United States is 21.8 per cent. Eighteen per cent of dentists were rejected and 12.6 per cent of veterinarians.

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California	16,668	North Dakota	475
Colorado	2,185	Ohio	9,883
Connecticut	3,275	Oklahoma	2,164
Delaware	429	Oregon	1,802
District of Columbia	2,464	Pennsylvania	14,207
Florida	3,025	Rhode Island	992
Georgia	3,031	South Carolina	1,476
Idaho	484	South Dakota	492
Illinois	12,764	Tennessee	3,113
Indiana	4,307	Texas	7,724
Iowa	2,890	Utah	841
Kansas	2,039	Vermont	569
Kentucky	2,527	Virginia	3,213
Louisiana	2,913	Washington	2,714
Maine	973	West Virginia	1,753
Maryland	3,445	Wisconsin	3,696
Massachusetts	8,688	Wyoming	247
Michigan	6,937	Total in U. S.	201,277
Minnesota	4,117		
Mississippi	1,457	Alaska	69
Missouri	5,074	Canal Zone, R. of P.	165
Montana	559	Hawaii	489
Nebraska	1,581	Puerto Rico	668
Nevada	199	Guam, Virgin Islands	14
New Hampshire	734	Total	1,406

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

ADVANCES IN INTERNAL MEDICINE. Editors: William Dock, M.D., Long Island College of Medicine, Brooklyn, N. Y., I. Snapper, M.D., The Mount Sinai Hospital, New York, N. Y. Associate Editors: Tinsley R. Harrison, M.D., Medical College of Alabama, Birmingham, Ala., Chester S. Keefer, M.D., Evans Memorial and Massachusetts Memorial Hospitals, Boston, Mass., Warfield T. Longcope, M.D., Cornhill Farm, Lee, Mass., J. Murray Steele, M.D., Goldwater Memorial Hospital, New York University Division, Welfare Island, N. Y. Volume IV. Chicago: The Year Book Publishers, Inc., 1950. Price, $10.00.

This book limits itself to a covering of nine subjects that have been selected as especially noteworthy during the past year. As such, they are completely and excellently covered by fourteen of the foremost authorities in their fields. The chapters are entitled Nitrogen Mustards in the Treatment of Neoplastic Disease, Use of Radioactive Isotopes in Medicine, Brucellosis, Advances in the Neuromuscular Disorders, Use of Sodium Depletion in Therapy, Clinical Use of Anticoagulants, Hepatitis and Cirrhosis of the Liver, Hepatic Tests, and the Vascular Physiology of Hypertension.

The bibliography on each discussion is very large, thereby giving adequate reference sources to those desiring it. The format is good and the composition makes good reading; the illustrations are excellent and adequate although relatively few in number. For the conditions covered, this is a most excellent book and can be heartily recommended to anyone interested in the field of medicine.

G.W.S.

PATHOLOGIC PHYSIOLOGY: MECHANISMS OF DISEASE. Edited by William A. Sodeman, M.D., F.A.C.P., The William Henderson Professor of the Prevention of Tropical and Semi-tropical Diseases, Tulane University of Louisiana School of Medicine; Senior Visiting Physician, Charity Hospital of Louisiana; Consultant in Medicine, U. S. Marine Hospital at New Orleans. Illustrated. Philadelphia: W. B. Saunders Co., 1950.

Books similar to this, compiled by twenty-five collaborators writing with authority on their particular subject, command general medical respect. It is well edited, and one feels that the policy of producing a single volume, written by a number of authors, is receiving increasing and merited recognition. The value of this treatise stems from two sources:

First, it gives the physician the factual, or the current consensus from the theoretical standpoint, information explaining the appearance of certain symptoms, and thus establishes an understandable correlation between the clinical course of the disease and the physiopathological changes that are taking place.

Secondly, since it is written by a number of authors, the time consumed in preparation is considerably less than if it were written by one man; therefore, it provides an up-to-the-minute résumé of the progress in the various fields of medicine ranging from hematology to water balance, and thus parallels the usefulness of the various specialty year books. The chapter on hematology

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by Castle and that on the diseases of the joints by Freyberg are excellent examples.

The book is strongly recommended both as a reference book and as a medium to keep abreast of medical progress.

A.A.H.

EXHIBITIONISM. By N. K. Rickles, B.S., M.D., Fellow of the American Psychiatric Association, Diplomate of the American Board of Psychiatry and Neurology, Senior Consultant at the Veterans Administration Center, Los Angeles, Consultant in Psychiatry to the Office of the Surgeon General, Medical Department, United States Army, and Director of the Psychiatric Center of Seattle. Philadelphia: J. B. Lippincott Co., 1950. Price $5.00.

This book is a long overdue treatise on a subject that has been greatly ignored and misunderstood. From the author's viewpoint there have been gross errors in the approach and management of exhibitionism. He presents theories of the cause and concepts of the involved psychopathology. He classifies the exhibitionist as a compulsive neurotic who feels forced to do something that he does not really like and prefers to suffer for an antisocial act rather than to allow the more socially ostracized, incest wish to become manifest. Exhibitionism is a purely defensive outburst. True exhibitionists seldom, if ever, go beyond the simple act of exposure. They make no effort to attack or molest, and as a result, they are not actually dangerous to society. He believes that they need psychotherapy and feels that the situation could be handled better and more economically if the agencies, designated by society to deal with it, would adopt a mature and scientific attitude.—G.K.S.

CEREBRAL PALSY. By John F. Pohl, M.D., Orthopedic Surgeon, Michael Dowling School for Crippled Children, Minneapolis, Minnesota. St. Paul, Minn.: Bruce Publishing Co., 1950. Price $5.00.

The author and publisher can be congratulated on editing such an excellent treatise. Authorities have estimated that there are approximately 500,000 cases of all ages in this country and 10,000 new victims yearly; therefore, it appears important that the general medical man be more familiar with this condition. This small volume is replete with photographic illustrations in order to demonstrate and carry out a thorough plan of treatment in speech, medical and surgical methods of treatment, relaxation and pattern training programs. There are also chapters on speech correction and occupational therapy.

This book may be unqualifiedly recommended to the profession, and, furthermore, should prove to be of great benefit to the more intelligent parents of spastics.

G.K.S.

A TEXTBOOK OF X-RAY DIAGNOSIS. By British Authors, in four volumes. Second edition. Edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London; and Peter Kerley, M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital, Radiologist, Royal Chest Hospital, London. Volume 3 with 698 illustrations. Philadelphia: W. B. Saunders Co., 1950. Price $10.00.

This second edition is a sparkling improvement, if possible, on the memorable first edition. Concerning the abdomen, it is a full reference for the specialist and a

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For the specialist in gastroenterology, the general surgeon, the urologist, the obstetrician and gynecologist, and for the radiologist, x-ray studies of the abdomen are discussed in detail. An excellent section is present on duodenal ileus and the postoperative stomach and duodenum. There is some sketchy underestimation of the incidence of prolapse of gastric mucosa into the duodenum, but this is offset by a sound chapter on the controversial subject of chronic appendicitis. Inflammatory lesions of the pancreas, long a diagnosis arrived at by elimination, are defined by emphasis on the indirect signs of physiological alterations in the gastrointestinal tract and biliary system. An unusually well-rounded chapter is present on the antenatal diagnosis of fetal abnormalities with only the regrettable omission of the possible recognition of the very important erythroblastosis fetalis.

Illustrations are sharp, well printed, and unequivocable examples of disease states. Layout and type make for easy study. No popular American textbook covers comparable subject matter so well.

G.T.P.

TUBERCULOSIS INDEX and Abstracts of Current Literature, Quarterly, September, 1949. National Association for the Prevention of Tuberculosis, London, England.

An index of all the articles touching on tuberculosis published in the available references, together with short abstracts of many papers. In the first section (about one-tenth of the volume), we noticed references to over twenty-four American journals.

THORACIC SURGERY. By Richtard H. Sweet, M.D., Associate Clinical Professor of Surgery, Harvard University Medical School; Illustrations by Jorge Rodriguez Arroyo, M.D., Assistant in Surgical Therapeutics, University of Mexico Medical School. Philadelphia: W. B. Saunders Co., 1950.

Thoracic surgery is a field of medicine that any well qualified surgeon may enter with confidence according to this author if the well described procedures of this volume are followed. The illustrations are magnificent, and are made by a trained surgeon. Instructions are explicit, and sufficiently profuse as to leave no lack to the surgeon looking for inspiration and confidence. The book is well written, follows the accepted standard of instruction, and leaves the reader satisfied.

PRINCIPLES OF GENERAL PSYCHOPATHOLOGY AN INTERPRETATION OF THE THEORETICAL FOUNDATIONS OF PSYCHOPATHOLOGICAL CONCEPTS. By Siegfried Fischer, M.D., Clinical Instructor in Psychiatry, University of California; formerly Professor of Psychiatry and Neurology, University of Breslau. New York: Philosophical Library. Price $4.75.

In this small volume, the author presents his own concepts of general psychopathology. This is a relatively young science, and there are not very many books covering the subject. The presentation of a new volume with a different approach should make this book welcome. The first two sections, "Fundamentals of Psychopathological Concepts" and "Comprehensible and Casual Connections," are very interesting and should be valuable to the student of medicine and psychiatry. In the third and fourth sections of the book, the author attempts to integrate his own approach to psychopathology and in so doing presents controversial concepts. The differentiation between "consciousness and awareness" and the concept of "the unconscious" seem unnecessarily difficult. The attempt to get away from introspection, and psychopathologic and psychiatric studies is revealed by the author as he makes introspection the basis of his evaluations and makes one feel that these concepts are more objective than they should be.

F.O.M.

CHILD PSYCHIATRY IN THE COMMUNITY. A PRIMER FOR TEACHERS, NURSES, AND OTHERS WHO CARE FOR CHILDREN. By Harold A. Greenberg, M.D., Senior Staff Psychiatrist, Institute for Juvenile Research, Chicago., Assistant Professor of Criminology, College of Medicine, University of Illinois, Chicago. In Collaboration with: Julian H. Pathman, Ph.D., Chief Psychologist, Downey Veterans Administration Hospital, Downey, Illinois; formerly Assistant Professor of Psychiatry, and Psychologist, Illinois Neuropsychiatric Institute, College of Medicine, University of Illinois, Chicago; formerly Senior Staff Psychologist, Institute for Juvenile Research, Chicago. Helen A. Sutton, R.N., B.A., B.S., formerly Psychiatric Nursing Instructor, Illinois Neuropsychiatric Institute, College of Medicine, University of Illinois, Chicago. Marjorie M. Browne, B.A., M.A., Instructor, School of Social Service Administration, University of Chicago. New York: G. P. Putnam's Sons, 1950. Price, $3.50.

Though it is a relatively new speciality, child psychiatry has shown considerable growth in the past thirty years. The author presents a brief review of this de-

velopment. The specialty arose in response to a need on the part of courts and agencies dealing with delinquent, potentially delinquent, and emotionally ill children. Problems of this variety overwhelmed the guidance clinics and much of the early work was diagnostic rather than therapeutic. With the advent of the therapeutic approach in the guidance center, the goals became somewhat modified and the results were more gratifying.

The book is divided into three sections. The first covers the history of the movement and the changing goals. It also contains chapters on psychogenesis of behavior problems, diagnosis, prognosis, and treatment. The psychopathology of these problems is very well organized, well written and could as an isolated chapter have an important place in any physician's library. Though this, with the chapters on diagnosis and treatment, presents an excellent summary, there are frequent warnings. This discussion should be the basis for intelligent referral to a child guidance clinic rather than the basis of treatment on the part of the teachers, nurses, and others who care for children. Overenthusiasm, as well as diagnostic and therapeutic efforts by those not qualified, leads to poor co-operation, resistances and great disappointments when the child does come to the clinic.

The second section of the book describes the "clinic team" and the organization and workings of a good guidance clinic. The appendix contains suggested application blanks and other forms used in the operation of the clinic, adding to the clarity of the description. There are separate chapters for each of the members of the "clinic team"; the Psychiatrist, the Psychologist, and the social worker. The basic training, the special techniques of each of these professional workers is presented in detail and then integrated by a description of the duties in the operation of the clinic as a whole. The last section of the book deals with the relation between the child psychiatrist and the various children's institutions in the community. It is here the impact and importance of child psychiatry as it affects the community is developed. Much help can be given the nurse, the teacher, and the parent in this approach.

This is a well-written, interesting book. It is amazing how much worth-while information concerning child psychiatry could be condensed into such a small volume without distortion and with a retention of significant details. The author is well aware of the dangers of oversimplification in the presentation of this sort and reminds the reader again and again against overenthusiasm. The presentation of material throughout the book is marked by well selected histories that truly illustrate the point to be made. Though specifically recommended for "teachers, nurses, and the others who care for children," this book should have a place in every physician's library.

F.O.M.

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DETROIT PHYSIOLOGICAL SOCIETY

(Continued from Page 65)

of the finished slide. Essential techniques such as the following are shown by the close-ups: fixing and hardening, alcohol dehydration, embedding, sharpening the microtome knife, sectioning, mounting the paraffin sections, staining with hematoxylin and eosin, placing the cover glass in position, labeling, and storing.

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MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

March 14-15-16	MICHIGAN POSTGRADUATE CLINICAL INSTITUTE	Detroit
March 17	SECOND ANNUAL MICHIGAN HEART DAY	Detroit
Spring	MSMS Postgraduate Extramural Courses	State-wide
April 3	Calhoun County Medical Society's Clinic Day	Battle Creek
April 4	SECOND MICHIGAN INDUSTRIAL HEALTH DAY	Detroit
April 18	Genesee County Medical Society's Cancer Day	Flint
April	Highland Park Physicians Club Clinic	Highland Park
May 3	Ingham County Medical Society's Clinic Day	Lansing
May 9	Wayne University College of Medicine Alumni Association Clinic Day and Reunion	Detroit
May 9-11	American College of Surgeons Section Meeting	Detroit
May 22	Bon Secours Hospital Clinic Day	Grosse Pointe
June	St. Clair County Medical Society's Clinic Day	St. Clair
June	Upper Peninsula Medical Society Annual Meeting	
July 26-27	Annual Coller-Penberthy Medical-Surgical Conference (sponsored by Grand Traverse - Leelanau - Benzie County Medical Society)	Traverse City
Sept. 26-27-28	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION	Grand Rapids
October 13	Third Michigan Cancer Conference	East Lansing
Autumn	MSMS Postgraduate Extramural Courses	State-wide
Oct. or Nov.	American Academy of General Practice of Wayne County	Detroit
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health)	Flint

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of December 13, 1950

Seventy-nine items were considered by the Executive Committee of The Council at its December 13 meeting. Chief in importance were:

- Monthly financial reports were presented and approved. Bills payable were inspected and authorized to be paid.
- Statement re bargaining of medical services, for publication in a news letter to Michigan manufacturers, was presented and approved.
- Plan of invitational membership campaign, with kickoff to be made at Annual County Secretaries -Public Relations Conference of January 21, 1951, was presented and approved, with authorization to the Public Relations Department to develop a brochure setting forth the benefits of membership in the AMA, Michigan State Medical Society, and component county medical societies of Michigan.
- Hospital standardization program: a statement from the American College of Surgeons on this subject was read. The ACS does not intend to relinquish its control of hospital standardization and has suggested a joint committee, representative of all interested groups, to work out a solution of existing problems.
- Report of MSMS representatives at annual session of Michigan Health Officers Association in Grand Rapids, November 29-30, was presented and approved.
- At the suggestion of President C. E. Umphrey, M.D., Detroit, a letter of congratulation was authorized to be sent to Dr. David Henry, Detroit, President of Wayne University, on his efforts in urging an increase in facilities for training of more doctors of medicine at Wayne University College of Medicine.
- At the suggestion of President Umphrey, a letter of congratulation was authorized to be sent to the officers of the Woman's Auxiliary of the Michigan State Medical Society, concerning their recent work and efforts, and particularly for the questionnaire outlining their program for the ensuing year.

(Continued on Page 120)



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HIGHLIGHTS OF THE COUNCIL

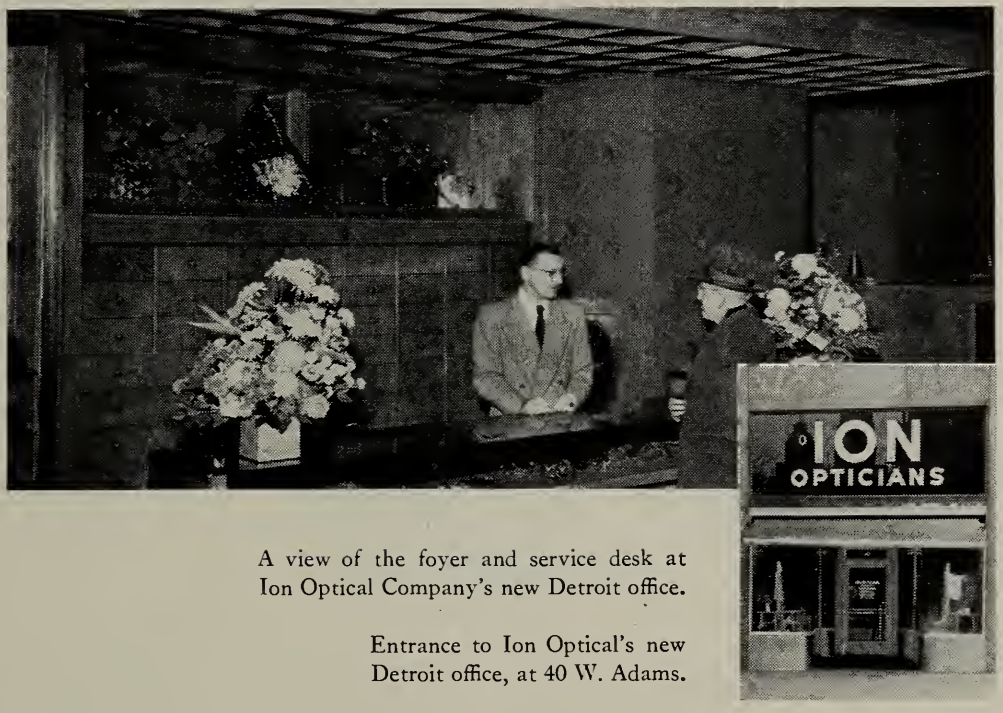
(Continued from Page 118)

- At the suggestion of President Umphrey, a letter of congratulation was authorized to be sent to C. D. Benson, M.D., Detroit, and his Wayne County Medical Society Committee for an excellent report on medical plans for civilian defense.
- Insurance reporting forms: pursuant to instruction of the 1950 MSMS House of Delegates, information has been obtained on more simplified and shorter insurance reporting forms from the AMA and from certain state medical societies. A Committee to study these reports was appointed: Matthew Peelen, M.D., Kalamazoo, Chairman, O. O. Beck, M.D., Birmingham, E. A. Osius, M.D., Detroit.
- Secretary L. Fernald Foster, M.D., reported that Major General George E. Armstrong, Washington, D. C., Deputy Surgeon General of the Army, had accepted invitation to be luncheon speaker on the occasion of the Annual County Secretaries-Public Relations Conference, Detroit, January 21, 1951.
- 1951 Michigan Postgraduate Clinical Institute: in Detroit, March 14-15-16, 1951: (a) The following were appointed as Chairmen of the six Assemblies and three luncheons: B. R. Corbus, M.D., Grand Rapids; J. H. Fyvie, M.D., Manistique; A. E. Heustis, M.D., Lansing; J. E. Manning, M.D., Saginaw; R. M. McKean, M.D., Detroit; J. M. Sheldon, M.D., Ann Arbor; D. I. Sugar, M.D., Detroit; C. E. Umphrey, M.D., Detroit; and R. W. Waggoner, M.D., Ann Arbor; (b) Scroll to Michigan's Foremost Family Physician of 1950, Lunette I. Powers, M.D., of Muskegon, was authorized to be presented to her on the occasion of the MPCI, on Wednesday, March 14, 1951; (c) Chairman of Wayne County Hospitality Committee, W. W. Babcock, M.D., Detroit, President of the Wayne County Medical Society.
- AMA Rural Health Conference, Memphis, Tenn., February 23-24: John R. Rodger, M.D., Bellaire, Chairman of the MSMS Committee on Rural Medical Service, and R. J. Hubbell, M.D., Kalamazoo, a member of this Committee, were authorized to represent the MSMS at this Conference.
- Conference on Temporary Cash Sickness Benefits Legislation (sponsored by AMA and held in N.Y.C. on November 12, 1950): excellent report on this Conference as submitted by O. J. Preston, M.D., Flint, MSMS representative, was read and received with thanks.
- 1951 MSMS Annual Session in Grand Rapids, September 26-27-28: (a) General Chairman was selected—J. Duane Miller, M.D., Grand Rapids; (b) Chairman of Press Relations Committee for the House of Delegates—J. E. Livesay, M.D., Flint; (c) Chairman of the Scientific Press Relations Committee—C. A. Payne, M.D., Grand Rapids; (d) a Scientific Exhibit was authorized at the Grand Rapids Annual Session of 1951.
- A request from the Michigan Department of Insurance for information on the subject of ectopic pregnancy was referred to the MSMS Maternal Health Committee for advice.
- Definition of local health unit, as requested by the Legal Advisor of AMA, was discussed by President C. E. Umphrey, M.D., by State Health Commissioner A. E. Heustis, M.D., Lansing, and by Detroit City Health Commissioner Joseph G. Molner, M.D., Detroit; a letter on this subject was authorized to be sent to the AMA, based on discussions at this meeting.
- Blue Cross-Blue Shield: E. D. Barnett, M.D., Detroit, President of Michigan Hospital Service; R. L. Novy, M.D., Detroit, President of Michigan Medical Service, and W. S. McNary, Detroit, Executive Vice President of Michigan Hospital Service, attended the meeting to present a progress report on Michigan Hospital Service. Upon the invitation of President Barnett, a committee of five MSMS representatives were appointed to meet with Dr. Barnett and with representatives of health and accident insurance companies at a meeting in Dr. Barnett's office on Tuesday, December 19. Committee: W. B. Cooksey, M.D., Detroit, Chairman; R. H. Baker, M.D., Pontiac; William Bromme, M.D., Detroit; C. E. Umphrey, M.D., Detroit, and J. Joseph Herbert, LL.B., Manistique.
- Matters of mutual interest were discussed with State Health Commissioner A. E. Heustis, M.D., including: (a) Reporting of communicable diseases by laboratories, on which subject a meeting would be called in January by Dr. Heustis; (b) Civil Defense—the Technical Committee on Medical and Health Matters presented a recommendation to the over-all Planning Committee

(Continued on Page 122)

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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 120)

that it was in general agreement with the present blood-typing program being run in Jackson, Alma, Ypsilanti, Birmingham, on, employes of the City of Detroit Health Department, and on the Wayne University personnel; Dr. Heustis stated that the Planning Committee took away from the Technical Committee the technical phases of the operation of a blood-typing program and placed it under the Michigan Health Department; (c) Budget cuts in federal funds forced the State Health Department to send termination notices to twenty-five employes—certain phases of the State Health Department's services will be limited including quantitative Kahns, cultures for tuberculosis, discontinuance of notification of birth registrations, and reduction of x-ray survey units; (d) The State Health Commissioner congratulated the Jackson County Medical Society on its December 12 meeting at which 159 state, county, and city officials considered ways and means to organize a county health unit.

- Insurance forms not issued by insurance companies: Legal Counsel J. Joseph Herbert gave his opinion on an inquiry concerning this recent practice: there is nothing improper in a doctor of medicine making out such an insurance report but Mr. Herbert suggested that when the insurance company form is not identified, either the identity be obtained, or the patient's consent to make the report be secured; re report to any oragnization other than an insurance company—this should not be sent without the consent of the patient.
- Monthly progress report of Rheumatic Fever Control Co-ordinator Leon DeVel, M.D., was presented and received.
- Reports on AMA Clinical Session, Cleveland, December 3-7, 1950, were presented.
- Doctors available for night calls in Ypsilanti. A system worked out by A. F. Milford, Jr., M.D., of Ypsilanti to provide night calls, and approved by the local medical profession—with patients being referred, after the night service, to their family doctor of medicine—was invited to the attention of the Executive Committee of The Council which requested President Umphrey to write Dr. Milford acknowledging his effort in providing night service for the people of Ypsilanti and advising him that MSMS will watch the experiment with interest and request a progress report at a later date.
- Committee appointments: (a) LeMoyne Snyder, M.D., Lansing was appointed to the Mental Hygiene Committee; (b) Thomas Heldt, M.D., Detroit, was appointed to the Advisory Committee (to State Department of Public Instruction) on Mental Health of Children; (c) C. J. Poppen, M.D., Lansing, was appointed to the Mental Hygiene Committee; and, (d) Wilfrid Haughey, M.D., Battle Creek, was appointed to the Advisory Committee to the State Social Welfare Department.
- Monthly progress report of the Public Relations Counsel was presented including: (a) Report on recent visits made by Mr. Brenneman and the three field secretaries; (b) Report on recent Annual Session of Michigan Hospital Association in Detroit; (c) The MSMS movie "To Your Health" has been shown in 216 theaters and the movie "Lucky Junior" in 245 theaters; (d) A joint meeting of MSMS representatives with a committee of the Life Underwriters Association was recommended; (e) Authorization was given the Public Relations Counsel to process a personal letter thanking the 200 outstanding M.D. workers, leaders, and key-men in their areas for recent organizational efforts in behalf of MSMS; (f) A new television program over WJBK-TV, Detroit, entitled "It's Your Life"—a half-hour program beginning December 17 and running every Sunday, produced by the Michigan State Medical Society and sponsored by the Medical Arts Pharmacy of Detroit, was reported; the script for the December 17 presentation was read and approved by the Executive Committee of The Council, which voted congratulations to the Medical Arts Pharmacy on the presentation of this interesting and informative TV program featuring medicine and health.
- Committee reports. The following Committee reports were given consideration: (a) Advisory Committee to Woman's Auxiliary, meeting of October 20; (b) Permanent Conference Committee, meeting of November 8; (c) Committee on Scientific Work, meeting of November 16; (e) Committee to Study Veterans Facility at Grand Rapids, meeting of November 22 and

(Continued on Page 124)

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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 122)

inspection of November 30; (f) Advisory Committee to State Social Welfare Department, meeting of November 28; (g) Committee on Scientific Radio, meeting of November 29; (h) Committee of Ophthalmologists, information from Chairman R. H. Pino, M.D.; Michigan Epilepsy Center, résumé of recommendations submitted by President A. J. Derbyshire, Ph.D.; Mental Hygiene Committee, meeting of November 30.

- Thanks were placed on the minutes to E. A. Osius, M.D., Detroit, former Councilor, who acted as host to the Executive Committee of The Council on this occasion.

MPCI—MARCH 14-15-16—DETROIT

The Fifth Michigan Postgraduate Clinical Institute will be held in the Book-Cadillac Hotel, Detroit, on Wednesday, Thursday, Friday, March 14, 15 and 16, 1951.



STAFFORD L. WARREN, M.D.

Burton R. Corbus, M.D., of Grand Rapids, General Chairman of Arrangements, invites all MSMS members to "one of the finest medical conferences that has ever been presented in Michigan." Attendance and interest in the MPCI increases yearly in direct ratio to the calibre of the program and the speakers of national prominence appearing on the platform. The Institute offers all doctors of medicine a concentrated three-day continuation course with lectures delivered by medical stars from all parts of the country. The program was printed in the January issue, Page 70. Copy of the final Program is available upon request to MPCI, 2020 Olds Tower, Lansing 8, Michigan.

Wednesday evening is Entertainment Night for registrants at the MPCI. Between 8:30 p.m. and 1:00 a.m., the Grand Ballroom of the Book-Cadillac Hotel will resound to the fine choral strains of Don Large and his Five Grenadiers, to the sweet and South American harmonies of Reg Thornton and his Orchestra, and to the zippy Square Dance music of "The Old-Timers." Host will be the Michigan Postgraduate Clinical Institute.

Stafford L. Warren, M.D., of Los Angeles, will speak on Thursday evening, March 15, 8:30 p.m., in the Grand Ballroom of the Book-Cadillac Hotel, on the subject of Atomic Warfare. This special feature of the MPCI, sponsored jointly by the Institute and the Wayne County Medical Society, will be a public meeting, to which all doctors of medicine, their wives, patients, and other friends are most cordially invited (no admission fee).

HEART DAY—MARCH 17—DETROIT

The second annual Michigan Heart Day will be featured on Saturday, March 17, under the sponsorship of the Michigan Heart Association. The morning lectures will be held in the Grand Ballroom of the Book-Cadillac Hotel, Detroit, followed by the annual Heart Day luncheon and the second Annual Meeting of Members of the Michigan Heart Association with election of officers. The program is published in the January issue, Page 76.

All MSMS members are invited by the Michigan Heart Association to attend its Heart Day, to refresh themselves in the latest advances during the past twelve months in the possible cause and present and future applications in preventing arteriosclerosis, hypertension and rheumatic fever.

WOMAN'S AUXILIARY BOARD MEETING, MARCH 14—DETROIT

The Woman's Auxiliary to the Michigan State Medical Society will hold its spring Board meeting at the Book-Cadillac Hotel, Detroit, on Wednesday, March 14, 1951, beginning at 10:00 a.m. Those invited to be present include the State Officers, Directors, Chairmen of Standing Committees, County Presidents and Presidents-elect.

Complimentary luncheon will be served at 12:00 noon. The meeting will be adjourned at 5:00 p.m.

Following the meeting, the members of the Woman's Auxiliary and the wives of all doctors of medicine are cordially invited to attend the entertainment of the Michigan Postgraduate Clinical Institute in the Grand Ballroom of the Book-Cadillac Hotel, Detroit, Wednesday, 8:30 p.m. (See program above.)

Thursday, March 15, is free for Woman's Auxiliary members. In the evening, wives of all physicians are invited to hear Stafford L. Warren, M.D., speak on Atomic Warfare, at 8:30 p.m., in the Grand Ballroom, Book-Cadillac Hotel.



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*Fry, C. O.: J. Am. M. Women's A. 4:51 (Feb.) 1949

"PREMARIN"®

Estrogenic Substances (water-soluble)
also known as Conjugated Estrogens (equine)

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg., and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

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INDUSTRIAL HEALTH DAY—APRIL 4—DETROIT

The second Michigan Industrial Health Day—an instructive continuation course in industrial medicine and surgery—will be featured in the auditorium of the Rackham Memorial Building, 100 Farnsworth Ave., Detroit, all day Wednesday, April 4. (Program on Page 134.)

Dr. Lillian M. Gilbreth of Montclair, New Jersey, will be the featured speaker at the evening banquet, to be held at 7:00 p.m., in the Sheraton Hotel (across the square from the Rackham Building.) Dr. Gilbreth is known to millions of readers throughout the world as the peace-loving mother of twelve in the popular novels "Cheaper by the Dozen" and "Bells on Their Toes." Her subject on April 4 will be "The Industrial Workers' Better World." All doctors of medicine, their wives and friends are invited to hear the interesting Dr. Gilbreth.

MYSTERIOUS INSURANCE FORMS

Have patients presented you with insurance forms which do not carry the name of any insurance company? If so, what is the proper procedure for you to follow?

The MSMS Legal Counsel is of the opinion that there is nothing improper in a doctor of medicine executing such a report but he recommends that when the insurance company form is not identified, either the identity be obtained or the patient's consent to have the report executed be secured.

When such a form appears to come from an organization other than an insurance company, the Legal Counsel recommends that it should *not* be executed and signed by the doctor of medicine without the consent of the patient.

SENIORITY DECIDES THE PRESIDENCY

The Bay County Medical Society (Michigan) has a custom of many years' standing whereby every member, on the basis of seniority, becomes President of the Society. The plan of honoring the member with the greatest longevity in membership, was inaugurated in 1921. After thirty years, the plan continues to operate and seems to eliminate any possible dissension or rankling of individual members who otherwise might seek the presidency. Each new member of the Society knows that, should he remain in the county a sufficient length of time, the office of the Bay County Medical Society presidency will come to him. The waiting period is about twenty years.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

At a special meeting of the American Board of Obstetrics and Gynecology, held in Pittsburgh, Pennsylvania, December 14, 1950, the following changes in the regulations of the Board were unanimously adopted:

1. That physicians otherwise qualified, who were graduated before January 1, 1939, and whose required training was in obstetrics or gynecology alone, and who have confined their practice to obstetrics or gynecology for at least five (5) years immediately prior to application be accepted for examination as candidates for certification in either obstetrics or gynecology. In all other respects requirements for eligibility remain the same for those physicians graduated since 1939. Bilateral training is required as published in the *Bulletin* of the Board.

2. Applicants who have been certified by one of the other American Specialty Examining Boards will not be eligible for certification by this Board until they have relinquished the certificate previously conferred.

3. Since the vast majority of obstetrical and gynecological cases are non-operative the Board requires adequate training in basic sciences, infertility, endocrinology, oncology, irradiation therapy, psychosomatic medicine, electrotherapy, and other non-operative methods of diagnosis and treatment as well as training in major operative procedures.

ALCOHOLISM

For the first time American medicine nationally has accepted the problems of alcoholism as a responsibility.

On December 7, 1950, the House of Delegates, the policy-making body of the American Medical Association, passed a resolution referring the subject to its Committee on Chronic Diseases. This committee is headed by Dr. Robertson Ward of San Francisco.

(Continued on Page 128)



For difficult or delicate infant feeding cases

MADE FROM GRADE A MILK

Baker's Modified Milk

POWDER FORM

● Baker's Modified Milk has always been made in two forms—powder and liquid.

For most feeding cases, the liquid form is usually prescribed because of the simplicity in formula preparation—just dilute with equal parts of water, previously boiled.

However, for prematures and difficult or delicate cases, the powder form is preferred because it is more readily digested. It is also preferable for complementary feedings when the baby is taking less than 14 ounces of formula per day. Many doctors prescribe Baker's Modified Milk (powder form) in cases of infantile eczema.

Doctors who prescribe Baker's will tell you they favor Baker's—powder or liquid—because of its wide application. With Baker's Modified Milk most babies make better progress, require fewer feeding adjustments from birth to the end of the bottle feeding period.

To put your babies on Baker's, just leave instructions at the hospital.

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Plant: East Troy, Wisconsin

Division Offices: San Francisco, Los Angeles, Dallas, Denver, Seattle and Greensboro, N. C.

ACCEPTED COUNCIL ON FOODS AND NUTRITION AMERICAN MEDICAL ASSOCIATION

ALCOHOLISM

(Continued from Page 126)

The resolution, asking for action by the House of Delegates on this subject, was presented by Dr. Herbert H. Bauckus, of Buffalo, N. Y., a past president of the New York State Medical Society, which has had a special Committee on Alcoholism for the last two years. The New York State Committee until now has been the only state or county medical society committee taking action on this subject matter as a medical problem.

Dr. Milton G. Potter, Buffalo, N. Y., chairman of the New York State Medical Society's special committee on this subject, was in attendance at the Cleveland session. In discussing the resolution he said that he hoped that the AMA Committee on Chronic Diseases would formulate and put into effect on a nationwide basis a comprehensive and effective program for medicine's participation in the work of solving these problems.

LITERATURE AND FILMS ON ATOMIC ENERGY

Available films on Atomic and Civil Defense include:

Name of Film	Sound or Silent	MM	Color or B&W	Running Time	Charges	Remarks
"THEY ALSO SERVE"	Sound	16 MM.	B & W	17 min.	$2.00	Write to Comm. on Medical Motion Pictures, AMA, 535 N. Dearborn, Chicago 10.
"ATOMIC ENERGY"	Sound	16 MM.	B & W	11 min.	$2.50	EBFilms, Inc., 5745 Crabtree Road, Birmingham, Mich.
"OPERATION CROSS-ROADS" MN-5345		16 MM.	Color	27 min.		District Public Information Office, 9th Naval District Headquarters, Great Lakes, Ill.
"ABLE AND BAKER TEST AT BIKINI" MN-5352		16 MM.	B & W	20 min.		District Public Information Office, 9th Naval District Headquarters, Great Lakes, Ill.
ATOMIC MEDICAL CASES—JAPAN, WORLD WAR II PMF 5143	Sound		B & W	37 min.		Commanding General, 5th Army, 1660 East Hyde Park Bldg., Chicago, Ill. Att: Signal Officer
PHYSICS, PHYSICAL DESTRUCTION AND CASUALTY EFFECTS OF THE BOMB—PMF 5058			Color	32 min.		Film Library MMD, Bldg. 55, 6301 W. Jefferson, Detroit 17, Mich.
THE MEDICAL EFFECTS OF THE ATOMIC BOMB PT. II—PATHOLOGY AND THE CLINICAL PROBLEM—PMF 5148	Sound		Color	37 min.		Same as above. Cannot be shown without the approval of "The Surgeon, Fifth Army, Chicago."
THE MEDICAL EFFECTS OF THE ATOMIC BOMB PT. III—MEDICAL SERVICE IN ATOMIC DISASTER—PMF 5149	Sound		Color	28 min.		Same as above.
FIRST AID FOR CHEMICAL CASUALTIES—TF 8-1180	Sound		B & W	16 min.		Same as above.
"ATOMIC ENERGY"				45 min.	$8.50	Film Center, Inc., 64 W. Randolph, Chicago 1, Ill.

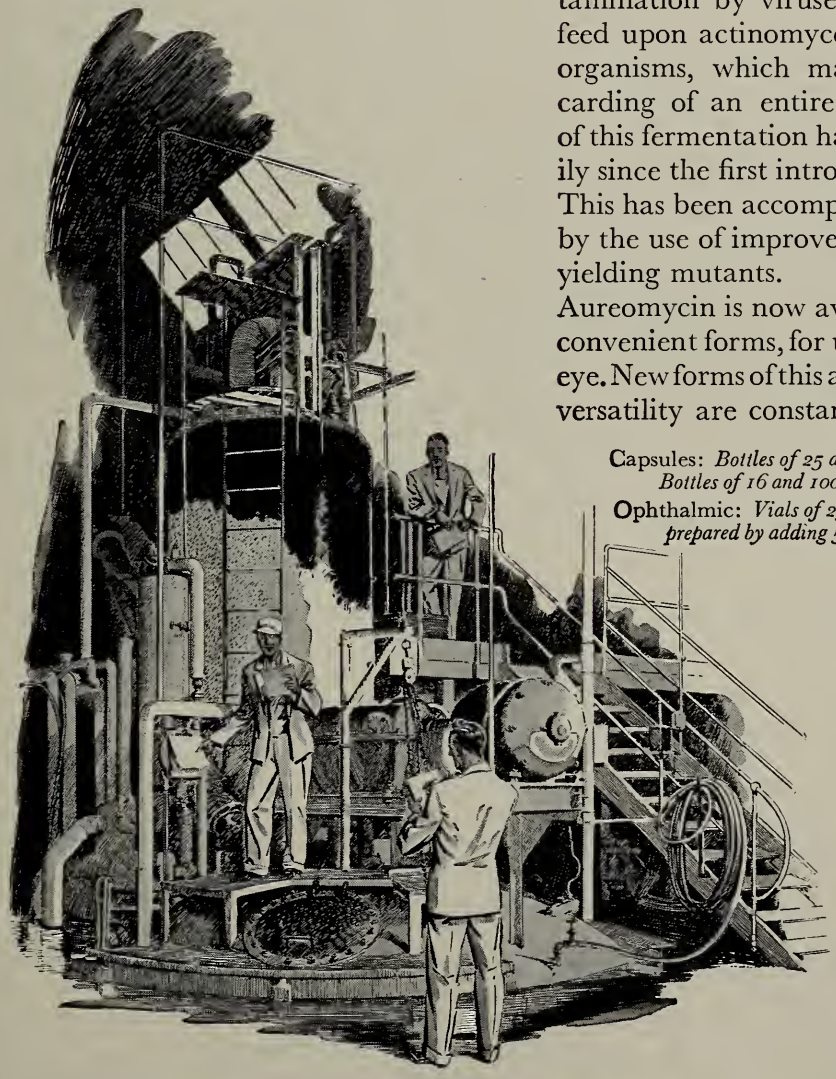
(Continued on Page 130)

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases

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The insatiable demand for aureomycin throughout the world has necessitated not only a tremendous expansion of our production capacity in the United States, but the setting up of highly complex technical organizations in other countries, looking toward eventual universal distribution of this extraordinarily valuable antibiotic. The huge tanks in which the basic fermentations are carried out have a capacity of 20,000 gallons each. Rigid precautions are taken to avoid contamination by viruses (actinophages) which feed upon actinomyces, and by other microorganisms, which may necessitate the discarding of an entire batch. The efficiency of this fermentation has been increased steadily since the first introduction of aureomycin. This has been accomplished for the most part by the use of improved media and of higher-yielding mutants.

Aureomycin is now available in a number of convenient forms, for use by mouth and in the eye. New forms of this antibiotic of unsurpassed versatility are constantly being brought out.



Capsules: *Bottles of 25 and 100, 50 mg. each capsule. Bottles of 16 and 100, 250 mg. each capsule.*

Ophthalmic: *Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.*

LEDERLE LABORATORIES DIVISION AMERICAN CYANAMID COMPANY 30 Rockefeller Plaza, New York 20, N.Y.

LITERATURE AND FILMS ON ATOMIC ENERGY

(Continued from Page 128)

Books and pamphlets in MSMS Library, on the subject of Atomic Energy and Emergency Medical Service, supplied through the courtesy of W. H. Gordon, M.D., Detroit, member of MSMS Emergency Medical Service Committee:

"WHAT YOU SHOULD KNOW ABOUT THE ATOMIC BOMB"—Surgeon General, Army Medical Dept.

"THE ATOM AND YOU"—Department of Public Instruction, State of Iowa.

"LECTURE SERIES IN NUCLEAR PHYSICS"—United States Atomic Energy Commission.

NUCLEAR SCIENCE ABSTRACTS, Vol. 4, Nos. 17 through 22, from September 15, 1950, through November 30, 1950—U. S. Atomic Energy Commission.

"THE RESPONSIBILITY OF THE COUNTY MEDICAL SOCIETY IN THE CIVIL DEFENSE PROBLEM"—Editorial of Wm. Bates, M.D., Director in *Philadelphia Medicine,* Sept. 30, 1950

"YOU AND THE ATOMIC BOMB"—What to do in Case of an Atomic Attack. Reprinted from *Look* Magazine by the New York State Civil Defense Commission.

"SURVIVAL UNDER ATOMIC ATTACK"—U. S. Government Booklet.

"HOW TO SURVIVE AN ATOMIC BOMB"—Richard Gerstell, Consultant, Civil Defense Office.

(Book) "CIVILIAN DEFENSE OF THE UNITED STATES"—Col. Dupuy and Lt. Carter.

(Book) "CIVIL AIR DEFENSE"—Lt. Col. Prentiss.

(Book) "THE EFFECTS OF ATOMIC WEAPONS"—Los Alamos Scientific Laboratory, United States Atomic Energy Commission.

"U. S. CIVIL DEFENSE"—National Security Resources Board.

"U. S. CIVIL DEFENSE—HEALTH SERVICES AND SPECIAL WEAPONS"—Federal Civil Defense Commission.

"DIRECTORY OF AMBULANCE PLANES"—U. S. Dept. of Commerce, Civil Aeronautics Administration.

(Book) "ATOMIC BOMBING—HOW TO PROTECT YOURSELF—WHAT AN "A" BOMB CAN DO . . . WHAT YOU CAN DO IN WORKING AGAINST ATTACK—"A" BOMB RADIATION—HOW TO DETECT "A" BOMB RADIATION—MEDICAL FIRST AID—TREATMENT OF BURNS—HISTORY OF ATOMIC ENERGY." Published by *Science.*

FACTS ABOUT AMA DUES FOR 1951

1. American Medical Association membership dues for 1951 are $25.00.

2. Fellowship dues for 1951 are $5.00 and are exclusive of membership dues.

3. American Medical Association membership dues are levied on "active" members of the Association. A member of a constituent association who holds the degree of Doctor of Medicine or Bachelor of Medicine and is entitled to exercise the rights of active membership in his constituent association, including the right to vote and hold office as determined by his constituent association, and has paid his American Medical Association dues, subject to the provisions of the By-Laws, is an "active" member of the association.

4. American Medical Association *membership dues* are payable through the component county medical society or the constituent state or territorial medical association, depending on the method adopted locally.

5. *Fellowship dues* are payable directly to the headquarters of the American Medical Association, 535 North Dearborn Street, Chicago 10, on receipt of the bill for such dues.

6. A dues paying, active member is eligible for Fellowship and may request such status by direct application to the Secretary of the American Medical Association. Applications for Fellowship are subject to approval by the Judicial Council of the Association.

7. Commissioned medical officers of the United States Army, the United States Navy, the United States Air Force or the United States Public Health Service, who have been nominated by the Surgeons General of the respective services, and the permanent medical officers of the Veterans Administration, who have been nominated by its Chief Medical Director, may become Service Fellows on approval of the Judicial Council. Service Fellows need not be members of the component county or constituent state or territorial associations or the American Medical Association and do not pay Fellowship dues. They do not receive any publication of the American Medical Association except by personal subscription. If a local medical society regulation permits, a Service Fellow may elect to become an active member of a component and constituent association and the American Medical Association, in which case he would pay the same membership dues as any other active member and receive a subscription to *The Journal of the American Medical Association.*

8. An active member of the American Medical Association may be excused from the payment of American Medical Association membership dues when it is deemed advisable by the Board of Trustees, provided that he is excused from the payment of full dues by his component society and constituent association.

The following may be excused in accordance with this provision: (a) members for whom the payment of dues would constitute a financial hardship as determined by their local medical societies; (b) members in actual training for not more than five years after graduation from medical school, and (c) members who have retired from active practice.

9. Active members of the American Medical Association are not excused from the payment of American Medical Association membership dues by virtue of their classification by their local societies as "honorary" members or because they are excused from the payment of local and state dues. Active members may be excused

(Continued on Page 221)

The first new product from our new laboratory is a parenteral B-complex particularly effective in secondary and nutritional anemias. It is a lyophilized preparation, therefore it is absolutely stable. It is offered in a multiple dose vial. No preservative is needed, so that it can be used intravenously.

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Each vial contains:

Thiamine Chloride	1500 mg.
Riboflavin	60 mg.
Pyridoxine HCL	150 mg.
Pantothenol equivalent to Calcium Pantothenate	300 mg.
Nicotinamide	3000 mg.

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Principals in a recent "It's Your Life" television broadcast over Detroit's WJBK-TV chat after the program. From left to right: Arch Walls, M.D., chairman of the MSMS Committee on Cinema and TV, Howard W. Mordue, Detroit, owner of the Medical Arts Pharmacy and sponsor of the show, and Jack Pickering, *Detroit Times* science writer, moderator of the program.



Arch Walls, M.D., Detroit, chairman of the Board of the American Academy of General Practice and representative of America's "family doctor," is interviewed by Jack Pickering, *Detroit Times* science writer and moderator of "It's Your Life," weekly MSMS television show on Station WJBK-TV, Detroit.

Television . . . Another Michigan "First"

One picture has often been said to equal a thousand words—but when the combination of voice and picture is used, the values are inestimable. Thus it is with television, the newest public relations medium being utilized by the Michigan State Medical Society to carry the story of Michigan's medical progress to the people.

With the introduction of the series "It's Your Life" televised over Detroit's WJBK-TV, channel 2, each Sunday afternoon from noon until twelve-thirty, the Society again takes to pioneering in a field heretofore strange to medical public relations. The program is made possible by the financial sponsorship of the Medical Arts Pharmacy of Detroit.

As originally set up, the program narrated by Jack Pickering, exacting science writer for the *Detroit Times,* was designed to disseminate news from the medical world through four facets dramatically presented: (1) scientific, (2) medical oddities, (3) organizational activity, and (4) socio-economic. To date the series has followed this pattern closely in presenting many subjects of interest to the general public. Already televised have been periods devoted to the heart, diabetes, cancer, crippled children, the family doctor, industrial medicine, legal medicine and arthritis, with leaders from the medical profession appearing as guest speakers.

Mr. Howard W. Mordue of the Medical Arts Pharmacy reports general excellent acceptance of this type of program. The format of the telecast is of the interview type with Mr. Pickering acting as moderator and interviewer. Miss Cyrilla Anderson of the Ruse-Urban Advertising Agency is Production Director. The half-hour show has a different setting each week which is tied in with the subject matter as closely as television studio facilities will permit. For example, the January 14 program, dealing with the subject of general practitioners, found its setting in an average kitchen set up in the studio. It was here that the general practitioner or family doctor was interviewed by the moderator. So it is that locales for each program correspond with the type of medical subject being treated.

Following the interview, Mr. Pickering takes time to report on questions which the viewing audience is invited to send in. The questions are answered by the doctor-guest of the afternoon from information available throughout the entire medical profession.

Another innovation in the "It's Your Life" series has been the use of films which have been produced by the MSMS and other organizations. An example was the screening of "Lucky Junior" immunization film on the TV show devoted to the institution of the family doctor. On other occasions, pictures from the Michigan Heart Association, the Michigan Crippled Children's Commission, the University of Michigan, et cetera, have been projected for the WJBK-TV audience.

An estimated 400,000 television receivers are in use in the Detroit area today, indicating a potential audience of more than 2,000,000 listeners (based on an estimated five viewers per TV set).

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The Only Form Of This Important Vitamin Official In The U. S. P.

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potency, purity, and lack of toxicity of *crystalline* vitamin B_{12} are clearly established.

Potency: Potency of this U.S.P. product is accurately determined by precise weight.

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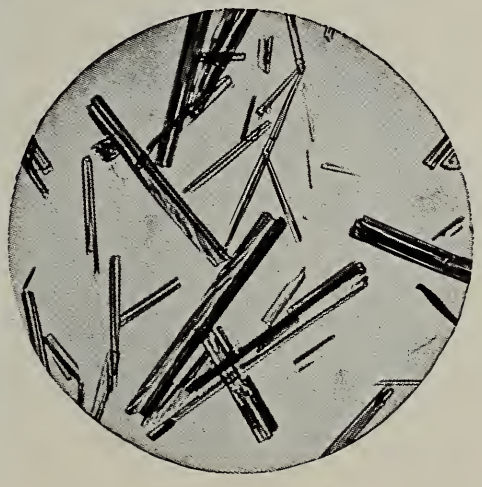
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Tolerance: Extremely well tolerated; "no evidence of sensitivity" has been reported.

Toxicity Studies:

In recent pharmacologic investigations, extremely large doses of *crystalline* vitamin B_{12} (1,600 mg./Kg.) caused no toxic reactions in any of the animals treated. In contrast, 3 mg./Kg. of a "*concentrate*" caused fatal reactions in 100 per cent of the animals treated.

Merck—first to isolate and produce vitamin B_{12}—supplies Crystalline Vitamin B_{12} in saline solution under the trademark Cobione.* Your pharmacist stocks Cobione in 1 cc. ampuls containing 15 micrograms of crystalline vitamin B_{12}.



Crystalline Vitamin B_{12}

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Second Michigan Industrial Health Day

Wednesday, April 4, 1951

Rackham Memorial Building
100 Farnsworth Avenue
Detroit 12, Michigan

Sponsored by the Michigan Association of Industrial Physicians and Surgeons; Wayne University College of Medicine; Michigan State Medical Society's Committee on Industrial Health; Division of Industrial Health of the Michigan Health Dept.; Medical School of the University of Michigan; Michigan State Association of Industrial Nurses; the School of Public Health of the University of Michigan, and the Michigan Industrial Hygiene Society.

General Chairman for the Day
CARL HANNA, M.D., Detroit

PROGRAM

Morning Session

Presiding, CLIFFORD H. KEENE, M.D., Medical Director, Kaiser-Frazer Corp., Willow Run, Michigan.

A.M.

9:00 **Registration:** Rackham Memorial Bldg., Main Auditorium.

9:30 **"Introduction to the Day's Activities."**
CLIFFORD H. KEENE, M.D., Medical Director, Kaiser-Frazer Corp., Willow Run, Michigan.

9:40 **"New Developments in Industrial Surgery."**
HARRY E. MOCK, JR., M.D., Northwestern University College of Medicine, Department of Surgery, Chicago, Illinois.

10:00 **"Developments in Industrial Nursing."**
HELEN DE COURSEY, R.N., Kelsey Hayes Wheel Company, Detroit.

10:20 **"The Rising Toll of Obesity in Industry."** America's number one health problem.
ALFRED W. PENNINGTON, M.D., Medical Department, E. I. DuPont Co., Wilmington, Delaware.

10:40 **"Beryllium Poisoning."** The newest major occupational disease.
OSCAR A. SANDER, M.D., Marquette University College of Medicine, Milwaukee, Wisconsin.

11:00 **"International Industrial Medicine."** The United States is carrying Industrial Medicine to other lands.
ROBERT C. PAGE, M.D., General Medical Director, Standard Oil Co. of New Jersey, New York, N. Y.

11:45 **Discussion Leader:**
GORDON H. SCOTT, PH.D., Dean of Medical College, Wayne University, Detroit, Michigan.

P.M.

12:00-2:00 **Lunch Period:** (The dining-rooms of nearby Sheraton Hotel are readily accessible)

Afternoon Session

Presiding, HARLEY L. KRIEGER, M.D., Medical Director, Ford Motor Co., Dearborn, Michigan.

P.M.

1:30 **"Defenses Against Atomic Bombing."**
DONALD S. LEONARD, Commissioner, Michigan State Police, East Lansing, Michigan.

2:30 **Medical Aspects of Atomic Warfare**

1. **"Effects on Personnel"**
   GEORGE A. HARDIE, M.D., Washington, D. C., Assistant to the Chief (in charge of Industrial Health activities) Medical Branch, U. S. Atomic Energy Commission.
2. **"Management of Injuries"**
   CHARLES L. DUNHAM, M.D., Washington, D. C., Chief, Medical Branch, U. S. Atomic Energy Commission, Washington, D. C.
3. **"Specific Problems for the Industrial Physician"**
   JAMES H. STERNER, M.D., Rochester, N. Y., Medical Director, Eastman Kodak Company.

4:00 **Discussion Leader and Demonstrator of Radio Activity Measurement Equipment.**
HOMER S. MYERS, Vice President, Radioactive Products, Inc., Detroit, Michigan.

* * *

4:30 **Annual Business Meeting**—Michigan Association of Industrial Physicians and Surgeons.
Presiding, JOSEPH L. ZEMENS, M.D., President, Michigan Association of Industrial Physicians and Surgeons, Detroit, Michigan.

Evening Sessions

6:00 **Cocktails:** Available in the Sheraton Hotel.

7:00 **Annual Banquet (informal)**

Toastmaster—CLARENCE E. UMPHREY, M.D., Detroit, President, Michigan State Medical Society.

"The Industrial Worker's Better World."

DR. LILLIAN M. GILBRETH, Consulting Industrial Engineer, Montclair, New Jersey.

The Inauguration of the Twenty-Five Years Occupational Health Service Group, and the Presentation of Certificates. JOSEPH L. ZEMENS, M.D., presiding.

All members of the Michigan State Medical Society are cordially invited to attend.



CAMP Scientific Support Fitting Courses stress the importance not only of theory but also the practical application of knowledge in clinical "workshops." Above is shown a group of fitters being instructed in the practical fitting of a patient (pendulous figure type) with a Camp orthopedic back brace.

A BASIC CAMP CREDO

"Education before Sales"

"How skilled is the fitter who assumes the duty of carrying out my instructions when I prescribe a scientific support?"

Camp Scientific Supports are sold and fitted in reputable stores in your community.

Every physician is justified in asking that question.

This year will mark the 23rd annual series of Camp Scientific Support Fitting Courses under medical supervision. Beginning in New York City, they will be held in principal cities throughout the nation. Estimated enrollment will include over a thousand representatives from reliable stores in all parts of the country. These courses are conducted by our Training Director, Medical Director, Designer and a staff of registered nurses. In addition to the formal sessions the nurses are constantly instructing smaller groups and individuals in countless other cities.

Since 1929 we have trained more than 16,000 fitters in the United States and Canada. That is why Camp research, Camp design and Camp craftsmanship can provide the ultimate in service to the patient.

S. H. CAMP and COMPANY, JACKSON, MICHIGAN

World's Largest Manufacturers of Scientific Supports

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ARMED FORCES MEDICAL POLICY COUNCIL ESTABLISHED BY DEFENSE DEPARTMENT

Establishment of an Armed Forces Medical Policy Council, as the principal agency of the Secretary of Defense in the field of medical and health services for the Armed Forces, was announced by the Secretary of Defense, General Marshall.

The new Council combines in one organization leading military and civilian medical and health authorities, under a civilian chairman.

Dr. Richard L. Meiling, who has been Director of the Office of Medical Services, Department of Defense, for the last fifteen months, has been named Chairman of the Armed Forces Medical Policy Council. He will serve also as principal adviser and assistant to the Secretary of Defense on medical and health matters.

Other members of the Council are Major General Raymond W. Bliss, Surgeon General of the Army; Rear Admiral Clifford A. Swanson, Surgeon General of the Navy; Major General Harry G. Armstrong, Surgeon General of the Air Force. They will serve with three civilians to be selected by the Secretary of Defense from among national authorities in medical and health fields.

The Council will develop basic medical and health policies for the Department of Defense and review those of the three military departments. It will collaborate closely with other defense agencies, such as the Joint Chiefs of Staff and the Munitions Boards, where medical considerations are involved.

Among the responsibilities of the Council are:

1. Developing and establishing uniform or joint programs in the Army, Navy and Air Force medical services, including joint utilization and cross-servicing of facilities;

2. Reviewing medical phases of budget estimates and legal proposals;

3. Initiating programs for standardization of various technical medical activities of the three services;

4. Representing the Secretary of Defense in dealing with other governmental and non-governmental agencies in medical and health matters of mutual interest; and

5. Developing close co-operation and mutual understanding between civilian and military medicine and the allied professions.

In the latter field, the three civilian members of the Council will insure active participation by civilian experts in developing broad medical and health plans for the Armed Forces.

Participation by the Surgeons General of the Army, Navy and Air Force will enable the Council to evaluate overall plans in relation to tactical and strategic missions of the three services and to consider operating problems presented by each.

The Armed Forces Medical Policy Council incorporates in a single organization the services previously performed by the following: Armed Forces Medical Advisory Committee (composed of civilian physicians and dentists under the Chairmanship of Charles P. Cooper); the Office of Medical Services and the Director of Medical Services, Department of Defense; and the Military Medical Advisory Committee (formed by the Director of Medical Services and composed of the Surgeons General of the Army, Navy and Air Force, the Chief Medical Director, Veterans Administration, and the Surgeon General, U. S. Public Health Service). These groups have been discontinued with the establishment of the Armed Forces Medical Policy Council.

DOCTOR DRAFT PROGRAM TO CONSIDER CIVILIAN NEEDS

Civilian needs will not be overlooked in the drafting of medical men, Selective Service promises.

The hundreds of Michigan doctors, dentists and veterinarians who must register January 15 will get a double screening before they are listed as eligible for military duty.

To guarantee that the draft will not endanger civilian needs, a voluntary advisory committee from the professions, as well as local draft board, will study registrations.

Col. Glenn B. Arnold, State draft director, said he will leave standards for selection entirely in the hands of this committee, which has scheduled a preliminary meeting in Detroit.

Dr. Grover C. Penberthy, of Detroit, is chairman. The other members are Dr. Albert E. Heustis, State health commissioner, and Dr. John O. Goodsell, Saginaw dentist.

Register January 15

Except for reservists, virtually all Michigan physicians, surgeons, dentists and veterinarians under 50 registered January 15.

Of 876 younger medical men who registered October 16, Col. Arnold said approximately 50 per cent have sought Army commissions. These were men who were trained at Government expense during the war or saw little service.

At least three times as many doctors were registered January 15, Col. Arnold predicted.

Although Washington has issued no doctor draft quota, Defense Department spokesmen have said about 13,000 will be needed to care for a projected military establishment of 3½ million men.

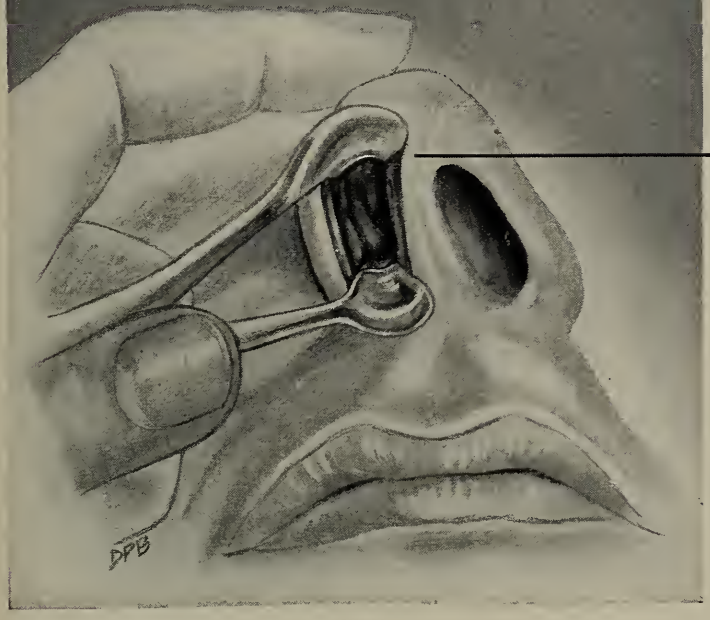
Deferment requests are coming from many communities which want their doctors to stay home, but Arnold said, "I don't know of one case in which the doctor himself has requested delay."

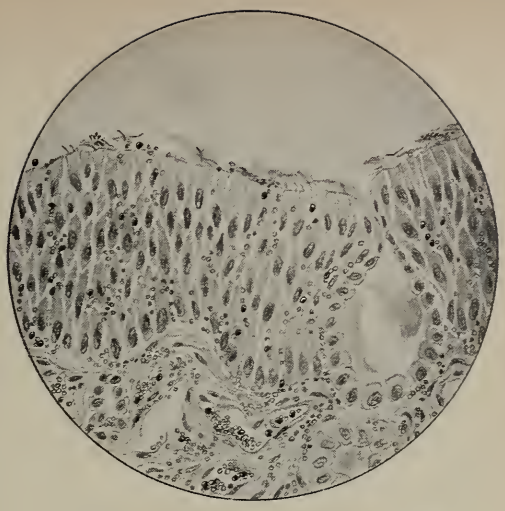
Deferment Policy

The advisory committee, knowing local needs, will

(Continued on Page 138)

promotes aeration . . . free drainage in colds . . . sinusitis





Nasal membrane showing increased leukocytes with denudation of cilia.

Normal appearing nasal epithelium.



Nasal engorgement and hypersecretion accompanying the common cold and sinusitis are quickly relieved by the vasoconstrictive action of

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DOCTOR DRAFT PROGRAM

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make deferment or non-deferment recommendations to local draft boards for final decision.

The Wayne County Medical Society lists 2,250 members and 500 associated interns and resident physicians. During World War II one-third of its members were in service.

Membership in the Detroit District Dental Society totals 1,353, about half of them under 50.

Registration hours January 15 will be 8 a.m. to 5 p.m. Those required to register may do so with any draft board wherever they are.

Thus, for instance, a Detroit doctor making house calls in Oakland County could stop at the Royal Oak draft board. It then would send his records to the draft board having jurisdiction over him.

Wayne County Selective Service headquarters at 1050 Fort Street West houses seven draft board offices. If one is crowded, registrants may go to another. One other Wayne County board, No. 101, is located at 3022 Oakwood Boulevard, Melvindale.

Addresses and telephone numbers of draft boards are listed in telephone directories under "U. S. Government —Selective Service."

Registration Rules

Those unable to register January 15 for reasons such as illness must do so as soon thereafter as possible.

Not required to register are those already in the armed services or their reserves, men in the Public Health Service and the Coast and Geodetic Survey, those who received their training at Government expense and registered in October, and certain "draft-proof" classes of aliens.

Students who receive degrees in medicine, surgery, dentistry and veterinary medicine or surgery after Janary 15 must register within five days after receiving the degree.

Selective Service officials in Washington have announced there is no immediate intention of drafting any of the January 15 registrants.

But, while the doctors are signing up, 4,200 of their sons and younger relatives and friends will be answering Michigan's January draft call, with 4,500 more to answer in February.

Enlistments, too, have risen. More than 1,000 recruits signed up for the Army and Air Force during the holidays.

—*Detroit News*, January 7, 1951.

UNITED STATES-CANADA LIAISON TEAMS TO STANDARDIZE ARMY MEDICAL INSTRUCTION AND EQUIPMENT

Formation of liaison teams by the U. S. Army Medical Service and the Royal Canadian Army Medical Corps to further co-operation in standardizing military medical instruction and equipment of the two armies, was announced recently by the Department of the Army.

Colonel J. C. Van Valin, director of the department of tactics, techniques and logistics of the Medical Field Service Schools at Brooke Army Medical Center, Fort Sam Houston, Texas, heads the American team.

Colonel Van Valin visited Canada last month to inaugurate a series of personal interchanges between the two countries in furtherance of the work.

Lieutenant Colonel John Barr, commandant of the Royal Canadian Army Medical Corps School, will be a guest of Colonel Van Valin in Texas in the near future.

This liaison is expected to save time and money for the countries through the exchange of specific information in fields in which each is an acknowledged leader. For example, Canada will receive the benefit of American experience in the field of tropical medicine, while the United States will profit from Canadian research and development in arctic medicine, without costly duplicative efforts.

ARMY DEVELOPS PERFECT SUBSTITUTE FOR MORPHINE

Perfection of a new synthetic narcotic to replace morphine was announced January 5, 1951, by Dr. Henry K. Beecher, civilian consultant to the Army Surgeon General. Dr. Beecher is professor of research in anesthesia at the Medical School of Harvard University and chief of the Department of Anesthesia at Massachusetts General Hospital.

Just arrived from Korea where the new drug, methadone, was tested at the farthest forward evacuation hospital near Hamhung on hundreds of American and allied wounded, Dr. Beecher declared that the field tests verified the findings that have been made in thousands of postoperative cases during the last three years at Massachusetts General Hospital.

The story of methadone goes back to the day in 1945 when the Army took over the I. G. Farben plant in Germany. Preliminary work had been done there and the information turned over to the Research and Development Board of Army Medical Service. During the postwar years the Surgeon General's Office has worked closely with other interested groups to perfect the new synthetic which has the same effect as morphine, milligram for milligram, and which is made from nitriles derived from nitrogen and hydrocarbons.

Final validation has been made under the most rigid conditions and methadone can be used either as a substitute or interchangeable with morphine. The racemic form of methadone is now on the market and is being made by several manufacturers for the government. The form known as Levo-Iso is the best to date.

An interesting sidelight is that methadone may be less habit-forming and will probably be a great help in curing morphine addicts. Tests at the U. S. Public Health Service for addicts at Lexington, Kentucky, showed the drugs relieve the terrible sufferings of patients being taken off morphine.

While the pain-killing power is as great as that of morphine, its side effects are even better, since Levo-Iso produces far less nausea and vomiting. It has the same effect in depressing respiration as does morphine. While

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The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
VOLUME 50 FEBRUARY, 1951 NUMBER 2

The Treatment of Epilepsy

Frederic A. Gibbs, M.D.
Chicago, Illinois

THERE ARE over a million persons with epilepsy in the United States, for epilepsy is as common as diabetes. The advances of the past ten years have made it as treatable as diabetes. As in diabetes, the patient must be kept for long periods on maintenance medication. The anti-epileptic drugs he takes should be viewed as substitution therapy because they are necessary substitutes for chemical configurations which his injured brain does not produce. Most of the anti-epileptic drugs are potentially dangerous; therefore, close medical supervision is essential. Specialists in epilepsy are necessary, but they must work with and through the family doctor; epilepsy is too big to be handled properly by specialists alone.

What Is Epilepsy?

Anyone of any age can become an epileptic. Many persons who do not know what is the matter with them have epilepsy, for it can masquerade in many forms. Epilepsy is an irritative reaction to brain injury. It does not occur as a result of those severe brain injuries which destroy the nerve cells of the brain, but as a result of minor injuries which produce physiological rather than histological changes. However, a zone of mild injury may occur around an area of severe injury, so epilepsy may occur in association with severe injury, as for example, in cerebral palsy. Also, after severe injury, the brain cells which have not been mortally injured may, as they recover, go through an irritative stage. The physiological, intermediate (non-structural) injuries which cause epilepsy can be produced in many ways: by trauma, infections, disorders of cerebral blood supply, and by tumors. In fact, by almost anything which in greater force or concentration can produce gross or histological injury.

Heredity is not as important a factor in epilepsy as was once supposed. In general, the chance that an epileptic will have an epileptic child is only one in fifty, and the chance that a person with epilepsy will have a near relative with epilepsy is only one in fifty. The chance that anyone will have epilepsy is about one in one hundred.

Epilepsy can be called a "tumor of function," for it is associated with a gigantism of energy release within the nervous system; the seizure is an "explosion" in which normal spatial and temporal barriers are disregarded. Although the epileptic brain when looked at with the microscope commonly appears entirely normal, if looked at with the electroencephalograph, particularly during sleep, it usually appears very abnormal. The electroencephalograph reveals "explosive" electrical discharges and shows that they occur not only at the time of clinical seizures but also between seizures. These between seizure discharges, or sub-clinical discharges as they are called, are many times more numerous than those which are associated with clinical seizures. The electroencephalographic recording appears as "squiggles" on a paper tape, much like the recording of earthquakes by a seismograph. In the hands of an expert such evidence is reliable. It indicates a failure of the normal temporal and spatial regulation of energy release within the central nervous system, a failure which is as real as the failure of growth regulation in cancer.

Dr. Gibbs is associate professor of psychiatry, Department of Psychiatry, College of Medicine, University of Illinois, Chicago.

Presented at the eighty-fifth Annual Session of the Michigan State Medical Society at Detroit, Michigan, September 22, 1950.

Anti-epileptic Treatment

The medical treatment of epilepsy is directed at damping down the electrochemical explosions in the brain with suitable "extinguishers." Different types of drugs have to be used against different types of discharge. More than five new anti-epileptic substances have been discovered in the last ten years, bringing the total number to over ten, and making it possible to control epileptic seizures in 80 per cent of all persons with epilepsy.

As in other conditions, the results that are obtained with treatment depend upon the experience, competence, and diligence of the therapist, but anti-epileptic substances are no more difficult to use than the commonly employed antibiotics. The interested internist or general practitioner can treat epilepsy as well, and possibly better, than anyone else, for the modern treatment of epilepsy requires blood counts and liver tolerance tests to guard against special sensitivities.

Detailed Recommendations

Several types of epileptic discharge must be differentiated if treatment is to be maximally effective. These discharges correspond to the four chief types of epileptic seizure:

1. Convulsions, either focal or generalized, are associated with abnormally fast electrical discharges from the brain.

2. Trance-like attacks and confusional episodes usually originate from focal discharges in the anterior part of the temporal lobe.

3. Seizures consisting of attacks of rage or pain and sudden episodic symptoms referrable to the vegetative nervous system are usually unassociated with cortical abnormality during the attack, but during light sleep, when the deeper structures assume control of the cortex, positive-spike seizure discharges appear, indicating an epileptic type of disorder in the thalamic and hypothalamic centers.

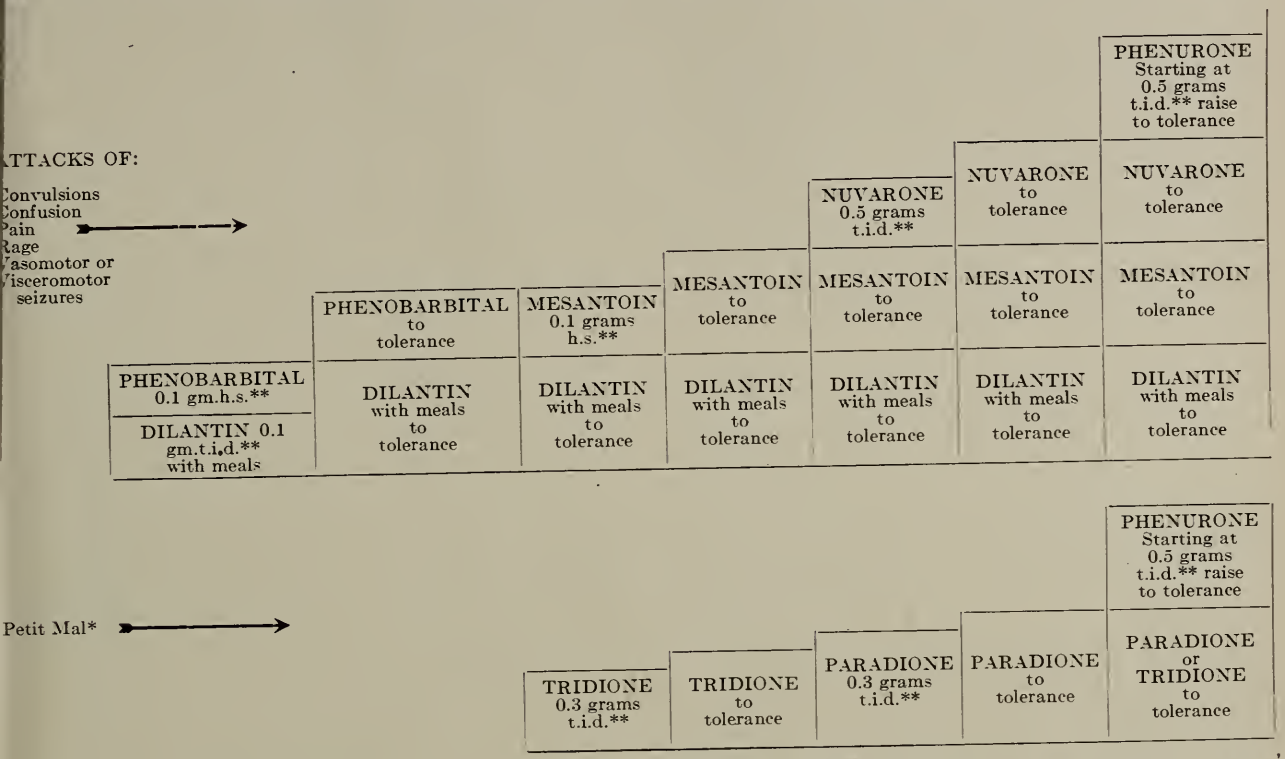
4. Brief attacks of blankness and blinking, which are called petit mal seizures, are associated with a gallop type of dysrhythmia; i.e., a fast discharge followed by a slow wave, the two components alternating three times per second.

The first three of these types of disorder are best treated with Dilantin[1] and phenobarbital,[2] or Dilantin and Mesantoin.[3,4] Phenobarbital is the least toxic of these substances, and also the least potent. It may be used alone in mild cases and in young children, or when the patient's situation makes it permissible to experiment with minimal medication. In general, however, phenobarbital is used most effectively to supplement the more potent anticonvulsant action of Dilantin. The latter is commonly given to adults in a dose of 0.1 gm. three times a day with meals, and phenobarbital in a dose of 0.1 gm. at bedtime; thus, any drowsiness which develops from the phenobarbital will not be disadvantageous. Dilantin does not usually cause drowsiness at high dosage, but only double vision, dizziness, nystagmus, and incoordination. Such symptoms should not be considered true "toxic" symptoms. They are merely annoying side effects which develop at high dosage; they cease within a few days after the dosage has been decreased. About 19 per cent of children taking Dilantin develop hypertrophy of the gums. This is not due to vitamin C deficiency; the ingestion of large amounts of vitamin C does not prevent it. The hypertrophy will subside if the Dilantin is discontinued or the dosage reduced. However, in cases in which Dilantin controls the seizure better than any other substance, the patient may prefer to have the hypertrophic gum tissue removed periodically by a competent oral surgeon rather than relinquish the protection afforded by the Dilantin. A new anticonvulsant substance, called Nuvarone,[5] can be substituted for Dilantin, or added to the Dilantin. It is less potent than Dilantin, but can be taken in very high dosage because it has almost no side effects. No cases have been encountered in which Nuvarone has produced hypertrophy of the gums, nor does it produce urticaria such as occurs in rare cases with Dilantin. Mesantoin is usually held in reserve and used in resistant cases as a substitute for phenobarbital in combination with Dilantin or Nuvarone. The dosage of Mesantoin is started at 0.1 gm. per day and is increased to tolerance, which in adults is usually 0.3 gm. per day. Higher dosages are likely to cause drowsiness. In order to use maximal amounts of Mesantoin, the phenobarbital dosage usually has to be reduced or discontinued. Phenobarbital should not be stopped abruptly however, but should be gradually reduced over a three- or four-day period; it is important to recognize that sudden withdrawal of phenobarbital is likely to precipitate convulsive seizures.

About 10 per cent of persons are sensitive to Mesantoin.[6] Regardless of the rate at which the dosage is increased, the sensitivity usually appear

week or two after the start of Mesantoin therapy. The patient develops one or more of the following symptoms: fever, lymphadenopathy, scarlatiniform rash. If Mesantoin medication is continued in the

When grand mal and petit mal occur in combination, the case is likely to be exceedingly difficult to treat because Dilantin tends to increase petit mal, whereas Tridione tends to increase grand



In cases with a mixture of both petit mal seizures and grand mal convulsions, Dilantin and Mesantoin commonly increase the petit mal disorder and Tridione and Paradione increase the grand mal disorder. For such cases Phenurone is particularly effective.
*A petit mal siezure is not any mild seizure, but one characterized by a few seconds of impaired consciousness with one or more of the following: blinking eyes, nodding head, or sudden loss of posture.
**Use one-half to one-third of this dose as a starting dose for a child or infant.

Fig. 1.

face of such sensitivity reaction, blood damage is likely to develop. However, if the drug is discontinued, the entire reaction usually subsides in three or four days, without development of a blood dyscrasia. In most cases it is possible to reinstitute Mesantoin therapy after the reaction has subsided, though it is wise to do so cautiously by starting with small doses, and only after assurance has been obtained from blood counts that the blood picture is entirely normal.

Petit mal seizures are best treated with Tridione[7] and a near relative of Tridione, called Paradione.[8] Because in sensitive persons both of these substances cause blood damage (Tridione more commonly than Paradione), good practice requires a monthly white count to guard against leukopenia. If the white count falls below 3,000, Tridione or Paradione medication should be discontinued. In such cases, the white count usually returns to normal within two or three weeks.

mal seizures. However, in some cases, Dilantin and Tridione can be used together successfully, so the combination is worth trying. The danger of blood damage is increased by using Mesantoin and Tridione together, and this combination should be avoided.

For patients with both grand mal and petit mal seizures, and for all cases which are resistant to other types of medication, a new drug called Phenurone[9] has been found to be useful. It is the first general anti-epileptic substance. It does not produce drowsiness or other handicapping side effects, and is not particularly toxic. But, some persons are sensitive to this substance and react with serious liver damage. It must be used, therefore, with caution and is held in reserve and only used when less hazardous remedies have failed to control seizures. When the patient has personality disorders or psychiatric symptoms, Phenurone may cause a great intensification of these. The

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exacerbation of psychiatric disorder usually subsides promptly, however, when the Phenurone is discontinued or the dosage reduced.

Phenurone is usually most effective when used in combination with other drugs. The starting dosage is 0.5 gm. three times a day, and it should be used to supplement that combination of anticonvulsants which have previously been found most effective in the patient under consideration. Once seizures are controlled, an effort can be made to simplify and improve the medication by eliminating (or decreasing the dosage of) any substance which is producing annoying side effects of which is considered hazardous.

Summary of Medical Treatment of Epilepsy

Use those substances that are likely to be effective against the particular type or types of seizure* that are present in the case under consideration (Fig. 1). Try the safest substance first. Increase the dosage to tolerance. If a given substance prevents seizures, retain it as maintenance medication. If partially effective, supplement it with the next safest substance; raise the dose to tolerance and proceed as before.

Full control of seizures often requires combinations** of drugs at high dosage. The idea is not to use as little medication as possible, but to stop the seizures with the least danger and with the minimum undesirable side effects.

In Figure 1 are charted the substances and starting doses of the most useful anti-epileptic remedies. These are shown diagramatically as blocks, built up to form a wall which restrains the force of the epileptic discharge.

Surgical Treatment of Epilepsy

When medical treatment does not control the seizures, or when the control is obtained only at the expense of a flare-up of psychiatric disorder, surgical removal of the epileptic focus should be considered. Surgery should be resorted to only when the patient is seriously handicapped by the epilepsy, and only when the epileptic focus lies in a brain area which can be surgically removed without the production of serious deficit symptoms.

Dr. Wilder Penfield, of Montreal, has been operating for many years to remove epileptic foci. More recently, Dr. Earl Walker, of Baltimore, has undertaken a direct surgical attack on the discharging area in post-traumatic cases. Dr. Percival Bailey, of Chicago, was the first neurosurgeon to perform anterior temporal lobe ablations for the treatment of psychomotor epilepsy. In order to demonstrate the focus in the majority of these persons, it is necessary to record the electroencephalogram during sleep. The operation is performed under pentothal anesthesia which produces a sleep-like state favorable to the appearance of the focus. Dr. John Green, of Phoenix, Arizona, who started his work with Dr. Bailey, is also performing this operation. Both of these surgeons have built up a series of twenty cases which have been carefully studied and followed over a period of at least a year. Both report that 50 per cent of the severe group of patients on whom they have operated are greatly improved. This figure corresponds roughly to the success ratio of Dr. Penfield and Dr. Walker in their operations, not only on temporal lobe epilepsy, but on focal epilepsy from other brain areas.

The Future

The treatment described here will be improved upon as new drugs and new surgical techniques are developed. The interested physician must, as always, keep his eyes and ears open for newly published information. The National Epilepsy League,† a laymen's organization, and the American League Against Epilepsy,§ a physicians' organization, are able and willing to provide information on all aspects of the problem of epilepsy. An annual, *Epilepsia,* is published by the International League Against Epilepsy. This journal contains original articles on epilepsy and also abstracts of all the pertinent literature.

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(Continued on Page 167)

*If possible, check the type of seizure by means of an electroencephalogram recorded during sleep and interpreted by a competent electroencephalographer.

**Tridione and Mesontoin should not be used together because of the increased risk of blood damage.

†Ben Gray, Executive Director, 130 North Wells Street, Chicago, Illinois.

§J. K. Merlis, M.D., Secretary, Cushing General Hospital, Framingham, Massachusetts.

Late Effects of Cerebral Birth Injury

Charles F. McKhann, M.D.,
W. Dean Belnap, M.D,. and Claude S. Beck, M.D.

Cleveland, Ohio

THE CONCENSUS has been that most of the serious childhood cerebral abnormalities are the result of hereditary or of intra-uterine developmental defects. Nevertheless, a recurring viewpoint has been that birth injury may be a major etiologic factor in these difficulties. Cole[2] has estimated that mental retardation, with or without associated convulsive disorders and spasticity, may be due, in as high as 70 per cent of cases in children, to brain injury at birth. Even the so-called "spontaneous deliveries" free of apparent complications have been associated with every known type of brain lesion. The quickly progressing and short labors, that prove so satisfactory to the mother, on the whole appear more dangerous for the infant. Russ and Strong[12] have shown that transient signs of minimal damage are not uncommon. Such signs include mild spasticity, nystagmus, opisthotonus and delayed initial respiration in the immediate neonatal period.

These injuries, traumatic or anoxic, are of significance in neonatal morbidity and mortality and may play a more important role than is generally suspected in etiology of later defects of physical and mental development.

Our studies indicate that minor and seemingly insignificant changes may later attain a serious character.

Anoxia

Schreiber[13] and Cole[2] suggest that the most important cause of birth injury is anoxia. Faber[6] supports this concept based on careful study of ninty-nine cases of brain injury. Thirty-five per cent of the injuries were a result of anoxia due to prenatal difficulty, especially premature separation of the placenta.

Outstanding as causes of anoxia in the paranatal period appear to be oversedation and excessive anesthesia during labor. Systemic disease in the mother, such as cardiac decompensation, pneumonia, and tuberculosis, may give rise to lowered oxygen tensions in the blood reaching the placenta. Although anoxia in the mother may be "anoxic," stagnant, anemic, or cytotoxic, the end result on the fetus is the same.

Clifford[1] has found that anoxia injury is the primary cause in 60 per cent of the deaths in full term and premature babies and at least that amount of morbidity among neonatal defectives.

Russ and Strong[12] observed that many infants were delivered by cesarean section with the idea in mind that the procedure would afford protection to the infant. In a large series of elective sections they found that this was not true. The infants appeared to be in good condition for several hours except for perhaps slight grunting respirations, then cyanosis and respiratory distress developed. Attacks were recurrent resulting either in death or marked anoxia. Postmortem findings revealed expansion of alveoli but the alveolar walls were observed to be covered with a pseudomembrane of amniotic fluid and its ectodermal contents.

Anoxia may cause damage to the respiratory center resulting in edema and an ensuing cycle of further depression.

Prolapse of the umbilical cord, occurring once in every 150 deliveries, according to Eastman,[4] is very difficult to treat and usually requires as rapid delivery as possible. Abnormal twisting or wrapping of the cord about the neck is not uncommon but cannot be corrected. Ehrenfest[5] points out the marked dangers of holding the head back in the final stages of delivery when the head is on the pelvic floor. This common offense of nurses, to prevent delivery until the physician arrives, is said to produce cord constriction and therefore marked anoxia.

Birth Trauma

In the course of normal and particularly of abnormal birth, the cranial contents may be traumatized without coincident damage to the skull.

Cephalo-pelvic disproportion is one of the major causes of cerebral damage during the natal process. Excessive molding in one diameter frequently results in dural tearing and therefore intracranial hemorrhage. Reduction in circulation may give

From the Departments of Pediatrics and Surgery, Western Reserve University School of Medicine and the University Hospitals of Cleveland.

Presented at the eighty-fifth annual session of the Michigan State Medical Society, September 21, 1950, at Detroit, Michigan.

TABLE I. CLASSIFICATION OF CAUSE OF MENTAL RETARDATION, CONVULSIVE DISORDERS, OR CEREBRAL PALSY IN 412 CHILDREN, BASED ON HISTORY AND PHYSICAL EXAMINATION

	No. of Cases	% of Total
Birth injury (late prenatal and paranatal)	218	53
Hereditary disease including postnatal	17	4.1
Congenital defects—developmental anomalies	13	3.2
Mongolism	24	5.8
Postnatal injury	57	13.8
Unknown	76	18.4
Kernicterus	7	1.7

rise to anoxia which also predisposes to hemorrhage. Such pelvic abnormalities serve as indication for elective cesarean section.

Gross evidence of intracranial trauma is present in only about half of the postmortem examinations of infants dying as a result of prolonged, difficult, or precipitous labor. Denny-Brown et al[3] and Ward[14] explain the symptomatology on the basis of concussion where visible pathology is minimal and physiological alterations of the vasculature, respiration and basic neurological reflexes have occurred during life.

Subdural hematoma is a complication of traumatic birth that, if recognized in time, can often be remedied and its sequelae prevented. Ingraham[7] has reported that in a series of ninty-eight cases of subdural hematoma, twenty-eight could be traced back to the neonatal period.

Method of Evaluation

We have, in the past sixteen months, subjected to analysis 419 children with mental retardation, convulsive disorders and cerebral palsy, singly or in combination.

The children ranged in age from eight months to fourteen years. Special attention was given to obtaining a careful history. Thorough physical and neurological examinations followed. On the basis of history and physical examination a classification of probable diagnoses was made. In about one out of five cases there was insufficient evidence to support even a probable diagnosis, and those cases were classified as etiologically obscure. The classification is presented in Table I.

Over half of the patients had a story strongly suggestive of birth injury, while in about one out of six cases the difficulty could be traced to postnatal injury on a traumatic, infectious or degenerative basis. In only one out of six in our study did the findings suggest an hereditary or congenital defect as the cause of neurological difficulty. Mental retardation was found in 89 per cent, convulsive disorders in 47 per cent, and cerebral palsy in 42 per cent of the patients.

TABLE II. PNEUMOENCEPHALOGRAPHIC AND ELECTROENCEPHALOGRAPHIC FINDINGS IN THE 243 CASES

	No. of Cases	Cortical Atrophy %			Organic E.E.G. %
		Diffuse	Localized	Total %	
Birth Injury	172	79	21	87	89
Cause Unknown with Neonatal Cyanosis	24	76	17	81	88
Cause Unknown without Neonatal Cyanosis	21	51	15	56	69
Postnatal Injury	26	82	29	93	94

Excluding those of obviously severe idiocy, 172 cases of probable birth injury were studied by pneumoencephalography, electroencephalography and psychometric examination. Forty-five of the cases of undeterminable etiology and thirteen children with a diagnosis of postnatal injury also received this type of investigation. Pneumoencephalograms were examined for signs of generalized or localized cortical atrophy. Without some evidence of atrophy one could not assume that the brain had been normal up to the time of injury. An attempt was made by electroencephalography to ascertain the presence of so-called cerebral dysrhythmias on an "organic" basis. A marked delta dysrhythmia and a petit mal variant dysrhythmia were selected as probably indicative of cortical damage. Epileptogenic foci were deemed more definite evidence of cortical damage. Cerebral blood flow and cerebral metabolism studies were done in twenty-two cases of probable birth injury, eight patients with postnatal injury and four children with unknown cause of their pathology. This was done after the method described by McKhann, Beck and Belnap.[8]

A total of 87 per cent of patients in whom a diagnosis of probable birth injury could be made showed signs of either diffuse or localized cortical atrophy, and in several cases, both (Table II). It is interesting to note that a similarity of statistics is to be found between patients having a history of neonatal cyanosis without a history of definite birth injury and those with such a history. Perhaps just as important, however, is the observation that over half of the patients, in whom a diagnosis of birth injury could not be made by history or suspected by presence of neonatal cyanosis, had signs of cortical atrophy. The presence of postnatal

cyanosis suggests that even a larger percentage of patients than indicatd by birth history alone have a probable origin of their difficulty in birth injury. We are supported in this view by the close correlation between the x-ray findings and electroencephalographic results in cases definitely and presumptively due to birth injury. Moreover the analogy with observation in patients with postnatal injury is striking. More than nine out of ten cases of postnatal injury had signs of cortical atrophy and an associated severe dysrhythmia.

Cerebral blood flow studies showed a marked reduction of flow in c.c. per 100 grams of brain tissue per minute from an average of 72 in a control series of ten normal children to 43 c.c. per 100 grams of brain tissue per minute in the twenty-two children with a diagnosis of probable birth injury. In all but two cases the flow was subnormal in the above group, while seven of the eight children with postnatal brain injuries demonstrated the same findings. Although not a statistically significant series, two of the four cases in which etiology was not determined gave similar results. This marked reduction in total flow may be explained on the basis of gliosis associated with and subsequent to brain injury. Penfield[9] has shown a marked deficiency of capillary bed to exist in the presence of gliosis, thus resulting in a diminished circulation. We have been unable to find any reduction in blood flow with similar studies of five children with mongolism.

On the basis of the supporting evidence we assumed the probability of birth injury in the 172 cases. They have been broken down into prenatal and paranatal groups depending upon the time of possible onset of the trauma. The number of cases in each group and their percentage of the total have been tabulated. In Table IV are listed the probable causative and contributory factors in the prenatal period.

TABLE III. I.Q. DISTRIBUTION OF THE 171 CASES OF BIRTH INJURY AND 44 CASES OF UNKNOWN DIAGNOSIS

	30		30-50		50-70		70-90		90	
	No. of Cases	% of Total	No. of Cases	% of Total	No. of Cases	% of Total	No. of Cases	% of Total	No. of Cases	% of Total
Birth Injury	31	18.1	51	29.8	47	27.5	39	22.8	3	1.8
Unknown Causes	3	6.8	18	41	16	36.3	7	15.9	0	0

TABLE IV. PROBABLE CAUSATIVE AND CONTRIBUTORY FACTORS IN THE PRENATAL PERIOD

	No. of Cases	% of Total 172 Cases
Premature separation placenta	7	4
Placenta previa	5	3
Kernicterus	7	4
Prematurity	27	15.7
Oversized infant (greater than 3800 gms.)	6	3.5
Toxemia	9	5
Maternal illness (anoxia)	6	3.5

TABLE V. PROBABLE CAUSATIVE AND CONTRIBUTORY FACTORS IN THE PARANATAL PERIOD

	No. of Cases	% of Total 172 Cases
Prolonged labor	7	4
Prolonged and "heavy" anesthesia	10	6
Marked sedation	19	11
Induced labor (oxytocic)	5	3
Breech delivery	7	4
Cesarean section (elective and emergency)	14	8
Cord defects		
Prolapse	2	1
Holding back of head	17	10
Tight about neck	9	5
High forceps	5	3
Precipitous delivery	9	5

Although prematurity is mentioned as a prenatal factor, most of the difficulty contributing to brain injury in this group probably arose during the birth process and in the neonatal period as a result of anoxia secondary to poor control of respiration. In the active prenatal period placental separation ranked highest as a cause of injury. Toxemia of pregnancy and kernicterus, the resulting mental defects of which may be secondary to placental abnormalities, also ranked high. We found that oversize (over 3800 gm.) may have been a cause in six of our cases, and maternal illness resulting in anoxia, the cause in an equal number.

Table V lists the probable causation and contributory factors in the paranatal period.

Marked sedation and "heavy" anesthesia appeared as possible causes of 17 per cent of our birth injuries. The chief offender was morphine or morphine in combination with scopolomine. Second in prominence within our series was a story of the head being held back by the nurse or intern until the physician arrived. This is a common practice, and certainly if cerebral injury resulted frequently, the incidence of brain injury

TABLE VI. ELECTROENCEPHALOGRAM AND PSYCHOMETRIC FINDINGS IN 37 BEHAVIOR-PROBLEM CHILDREN

	No. of Cases	% of Total	Electroencephalogram Dysrhythmias	"Organic" Psychometrics
			%	%
Birth injury	13	36	84	65
Postnatal injury	3	8	100	66.6
Unknown	21	56	45	38
Total % having Electroencephalogram dysrhythmia = 65%				
Total % having "organic" psychometrics = 52%				

would be enormous. Nine of our fourteen cases with a story of a stormy neonatal course were a result of elective cesarean sections in which asphyxia may have been a primary cause. All five of the cases, in which labor was induced by the use of oxytocic drugs, experienced a precipitous labor and delivery. Noteworthy is the high incidence of focal atrophy and focal dysrhythmia among the several cases of high forceps delivery and precipitous delivery, suggesting that localized contusion or hemorrhage may have occurred.

Careful examination of the histories of the thirty-seven behavior-problem children revealed a significantly higher incidence of a story suggesting birth injury than is true of the normal population. Such a history was given for 36 per cent of the children and 8 per cent had a story of postnatal injury (Table VI).

These findings support those of Preston[10] who reviewed the histories of 132 children with anoxia at birth in relation to a long range follow-up. One-fourth of these were mentally retarded. The remainder were normal mentally but showed deviate behavior. Twenty per cent of the children had convulsive disorders. Many of his cases, as well as of our own, were feeding problems in the first year of life and were falsely classified as cases of "cyclic vomiting." Some children are hyperkinetic while others are apathetic, but particularly distressing is the inability of bright children to concentrate or co-operate.

Rosenfeld and Bradley,[11] in another series of 673 children referred for psychotherapy, found a 40 per cent incidence of abnormal electroencephalograms. The majority of those having a history of neonatal asphyxia showed a characteristic syndrome consisting of fluctuations in mood, hyperkinesis, short attention span, impulsiveness, fluctuant ability to recall previously learned material, and conspicuous difficulty with arithmetic.

As an aid to further diagnosis of birth injury we have tabulated the seven more common signs

TABLE VII. NEONATAL SIGNS IN ORDER OF THEIR OCCURRENCE BY HISTORY

	%
Poor sucking reflex	92
Poor rooting reflex	86
Lethargy	76
Cyanosis	68
Vomiting	64
Convulsions	47
Variation in body temperature	36

of abnormality encountered in the neonatal period. They have been listed by percentage and in the order of their frequency in Table VII. Particularly prominent was the failure to suck and the marked lethargy.

Summary

The evidence suggests that birth injuries may be a major factor in the causation of late cerebral disorders. Studied in retrospect, the evidence does not distinguish between cerebral birth injuries due to anoxia and those due to direct trauma. Cortical atrophy revealed in pneumoencephalograms is accepted as presumptive evidence that the brain was injured following complete formation. This finding, together with changes attributable to organic disease in the electroencephalographic tracings, was present in almost all patients with a known history of birth injury and in an unsuspectedly large number of other children in whom the history was obscure. Decreased cerebral blood flow was present in those cases studied in whom gliosis might have followed cerebral injury but was absent in children with a known developmental defect as exemplified by mongolism.

Behavior disorders in children without retardation, spasticity, or convulsions appear to be possible sequelae of milder degrees of cerebral injury at birth. The data suggest that at least one out of five birth injuries may have been due to preventable causes.

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Prevention of Behavior Problems in Pediatric Practice

By Lee Forrest Hill, M.D.
Des Moines, Iowa

THE TREND in medical practice among children is toward increasing emphasis upon preventive care for the well child. There are several reasons for this development. One is that less time is required in private practice for the care of the sick child. The diarrheal diseases have largely been conquered and infant feeding has become so simplified that it no longer requires the specialized services of the "baby doctor." Immunization procedures have reduced the incidence of many of the communicable diseases, and the advent of the chemical drugs and antibiotics have provided such effective specific therapy against a wide variety of infections that the time-consuming complications, once common, have now practically disappeared.

According to the recent survey conducted by the American Academy of Pediatrics, pediatricians spend 54 per cent of their time in preventive pediatrics or in the care of the well child, and general practitioners, in the pediatric phase of their practices, spend approximately one-fourth of their time in a similar manner. This immediately raises the question as to what is meant by preventive care for the well child and what is included in such a program. Unfortunately, no standard exists which defines ideally or even practically the kind or amount of preventive care a child should receive. In the absence of a prescribed standard, it may be permissible to refer to the scope of health supervision commonly supplied by the pediatrician to his child patients. Customarily, infants and children are brought to his office for monthly examinations during the first year, every three months during the second year, twice a year from the second to the fifth year, and at yearly intervals throughout the remainder of the growing period. The purpose of such regular examinations is to appraise the adequacy of growth and development as shown by physical measurements and by mental and motor achievements. Failure to attain expected increments in any of these categories calls for an immediate and as exhaustive a search for the cause as may be necessary. Thus, disease in its incipiency may be detected, and corrective measures instituted before irreparable organic damage has resulted.

A careful physical examination is done at each examination, including tests for acuity of vision and hearing at or near the beginning of the school years. Simple laboratory tests of the blood and urine are performed, and tuberculin tests are made at three-year intervals. Immunization procedures are carried out at the proper age in infancy and appropriate "booster" injections are given in later childhood. The adequacy of the diet, including vitamines and mineral supplements to meet nutritional requirements as these vary with growth periods, is reviewed at each visit. Finally, the periodic health examination gives the physician an opportunity, which isn't always too well utilized at present, to educate parents about the behavior patterns which all normal children within reasonable variations exhibit as they develop and unfold in their emotional growth. Parent education in what to expect in the way of child behavior—what is normal and what is not—together with suggestions as to how to cope with each major situation as it arises should result in the prevention of later undesirable emotional maladjustment and incidentally to secure for the parents more satisfaction in the day-to-day living with children.

If parents are to obtain this type of service in rearing their children, the responsibility clearly rests with the child's physician—the general practitioner and the pediatrician. While child guidance clinics and child psychiatrists have increased greatly in number in recent years since the importance of mental health for children has emerged, nevertheless there are not enough of them and probably never will be to take on this type of service for all children. Their function is to continue with research in this relatively new field, to educate physicians and the laity, and to accept referrals from the general practitioners and pediatricians of the more seriously emotionally disturbed families. It is not suggested that general practitioners and pediatricians become psychiatrists, but it would seem necessary, if they are to offer parental guidance as part of their medical service, that they become more psychiatrically minded in the future than they have been in the past.

Dr. Arnold Gesell of Yale and many others have contributed much to a better understanding of the normal processes of growth and development in

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society at Detroit, September 20, 1950.

all its phases—physical, intellectual and emotional. They have pointed out that all normal children pass through much the same maturational sequences in their development from birth to adult life. This is easily grasped so far as physical and intellectual growth are concerned. Thus the infant sits before he stands, stands before he walks, and the child looks at pictures before he can read a book. To expect any different sequence of events would, even to parents, be ridiculous. But the behavior patterns of emotional development, while equally characteristic in the different age periods, are less obvious and therefore not so readily accepted. For instance, it is a little difficult for parents to be sanguine about such behavior as temper-tantrums, negativism, and curiosity about the way the opposite sex is constructed, especially when the latter leads to investigations with the neighbor's child. And when the five-year-old calls his mother an "old dummy" or tells her to "shut up," it takes a good deal of persuasion to convince her to ignore such language on the basis that that's the way five-year-olds behave and that it's but a passing phase.

Nevertheless, lack of parental understanding not infrequently leads to parent-child emotional conflicts through the well-intentioned but mistaken concept that such behavior must be nipped in the bud lest it persist into adult life. Too frequently such attempts only aggravate the situation, when with more understanding and wiser management the original objectionable behavior would normally have ceased. Herein, then, lies an opportunity for general practitioners and pediatricians to be of real service to their child patients and parents. Anticipating for and interpreting to parents the kind of behavior they may expect their children to exhibit in the various age periods through which they pass provides them with knowledge and confidence to manage their children fairly and at the same time to extract the utmost in satisfaction from the association.

Now I should like to illustrate what I have been saying by discussing some of the types of behavior encountered in the first two years of life. I shall limit my remarks to the first two years, first because I think it's a very important period for the establishment of good parent-child relationships, and second because it will use up all, if not more than, my allotted space. Let's start with the crying infant. Certainly for parents, especially with their first-born, crying is problem number one. Books on baby care and magazine articles have assured them that healthy babies sleep twenty out of the twenty-four hours in a day. No wonder they vision all sorts of horrible things wrong with their baby when it doesn't follow any such pattern! Well, why do infants cry, and what is meant by three months colic? Ask a group of doctors and you're likely to get a dozen different answers. One says it is due to swallowed air. Another says it's allergy to milk or orange juice or fish oil. Maybe the baby is hungry or the hole in the nipple is too small. Still another will maintain it's too much fat in the formula or the wrong kind of sugar or too much of it. The psychiatrically-minded physician may insist the baby lacks tender, loving care, while the practitioner who doesn't go for that stuff maintains the baby is just plain spoiled. One of my colleagues had been struggling somewhat unsuccessfully with a crying infant for some weeks. One day the mother asked him, "What makes babies cry?" to which he replied, " I only wish I knew." Some time later, she returned to his office and in his absence left word with his secretary to tell him that the answer to why babies cry is that they need more cream in their formulas. One of my patients, who became somewhat discouraged with me under similar circumstances, later informed me that the cause of her baby's crying had been discovered by another physician. "He has an enlarged thymus," she said. Obviously, there is no simple answer to the question of "why do babies cry?"

This was one of the first problems attacked by Dr. Aldrich when he went to Rochester, Minnesota. Fifty babies in the new-born nursery were observed day and night for eight days. Observations were kept on the total number of crying episodes, the duration of each crying period, the time of day when the crying occurred and, as nearly as possible, the cause of each crying episode was recorded. There was an average of eleven crying episodes per baby per twenty-four hours. The longest period was four hours and the shortest three-fourths of an hour with an average of two hours per baby per day. The peaks of the crying came at 6:00 p.m. and at 12:00 midnight when there was a minimum of nursing service available. In a subsequent study, Dr. Aldrich reported that adding additional personnel at these periods reduced the crying by 50 per cent. Thirty-five per cent of the babies cried because they were hungry, 10 per cent because they had soiled diapers, and

20 per cent because their diapers were wet. This left 35 per cent for which no apparent cause for the crying could be ascribed. Dr. Aldrich speculated that the changed environment from intra-uterine to extra-uterine existence may have played a part. Possible factors would be light, lack of warmth, noise, clothing, and the lack of the rhythmical rocking motion to which the infant had become accustomed in the mother's uterus. Most of us who conduct private practices would, I think, have said that babies cried very little in the nursery, but promptly began when they reached home. At least this is the time when the crying of the baby is brought to our attention. But apparently this is not the case, for in a similar study in homes, using the mothers as observers, there were only four daily episodes of crying compared to the eleven in the hospital.

What's to be done about the crying of infants? Aside from the usual measures of sedative drugs, changing formulas and the like, there are several possible answers. First of all, it seems to me important that the concept be grasped that crying in the infant in the first few months of life is a protective reflex designed by nature as an effective method of calling attention to his needs at a time when he lacks other means of making his wants known. It must be looked upon as a wise provision on the part of nature, for without it it is doubtful if the human race would have survived. As the infant matures and the need for this protective mechanism subsides, the crying reflex gradually disappears. The stimulus which calls forth the cry in the young infant may be minor and inconsequential or it may be of more major significance, such as hunger. At any rate, parents should be prewarned while the baby is still in the hospital that this is characteristic behavior of most infants in the first two or three months of life. Thus armed, they may be able to view with less concern and with more understanding the 3:00 a.m. whoops which are very likely to occur.

Helpful in the crying situation is the self-regulating feeding schedule, which has become popular in recent years and which seems to me to be far more sensible than the previous rigid calorie and clock regimen. I have used it for a number of years now, and very seldom have I found a mother who doesn't prefer the privilege of feeling free to feed her hungry infant at the time the signs are obviously present rather than letting the clock be the deciding factor. It's illogical to suppose that a dozen infants all weighing 7½ pounds as they leave the hospital are going to have identical food needs or that their hunger contractions are going to come at identical hours. Infants whose growth genes have set a pattern for a rapid growth and large size will obviously demand more food than those of smaller stature and less rapid growth. Similarly, active infants will consume more calories than those of a more placid disposition. Every pediatrician has classic examples of unusual infant behavior in his experience with the self-regulating schedule. I have a couple. One was a two-month-old breast fed infant who put herself on three meals a day, took eight ounces at each feeding, gained beautifully, and was a model of behavior. Another infant of three months of age cried incessantly. Bottle feedings were limited to six ounces, but were always completely consumed. The formula preparation was satisfactory. I suggested the mother let the infant have what it wished at each feeding. At the next visit a month later, I asked what had happened. The mother said the baby took two and one-half bottles or 20 oz. at the first feeding, then settled down to eight-ounce feedings and had been perfectly content from then on. Perhaps a word of caution should be proffered the mother when the self-regulatory schedule is being explained. Certainly it is not intended that the breast should be offered or a bottle popped into the baby's mouth every time he cries. But rather the mother should be instructed to use that interval between feedings which she finds best suited to her particular infant's feeding rhythm, whether it be three or four hours between feedings or at times even longer. The baby will still be on a schedule, but it will be one which the mother and baby have worked out between them.

Another innovation, largely in the blueprint stage at present, which has promise of contributing to the solution of the crying problem is the so-called "rooming-in" arrangement for the mother and baby during the hospital stay. It has many advantages and some disadvantages. Among the advantages is the better utilization of the nurse's time. Instead of running up and down the halls getting the baby to and from the mother's room six or eight times a day, she spends her time in teaching and helping each mother with the care of her baby. Since fathers are the only visitors permitted in the rooming-in plan, both parents, together, have an opportunity to gain some familiari-

ty with the behavior of a new-born baby before they have to go it alone at home. Psychologically, both mother and baby should fare better, in that the mother would have full opportunity to give expression to her maternal instincts from the outset. Breast feeding, now becoming a lost art, might be revived. In our experience, the chief disadvantage has been the inability of the occasional mother to get sufficient sleep because of the baby's crying. But what seems to be a disadvantage may in the end turn out to be an advantage in that the mother has had the experience of going through the baptism of her baby's crying and has learned from the nurses how to evaluate it.

So much for the crying infant. By the end of three months, most parents have become accustomed to the task of raising a baby, and the period of crying or "three months colic" has largely come to an end. The remainder of the first year is usually a pretty peaceful time and a pleasant experience. Only a few minor things arise to disturb the equanimity of the parents. One of these is thumb sucking, which is of such common occurrence in infants that it may be regarded as a normal behavior trait. Parents usually express the fear that the practice will permanently deform the jaws. A little time-out may well be taken to explain to parents that the habit children have of putting everything into their mouths may at one time have served a useful purpose. It is conceivable that in the ancient struggle for existence, life itself may have depended upon the chance that what was put in the mouth might have some nutritional value. At any rate, I much prefer some such explanation as this to the Freudian concept of sexual gratification. Parents can be assured that if the practice stops by four or five years of age, when it practically always does, simply because the child has matured sufficiently to put infantile methods of behavior behind him, the jaws will in the next five or six years of development resume their normal contours. A comparable example is seen in the spontaneous straightening of the legs by six or seven years of age when they were bowed or knock-kneed at two. The psychological effect of yanking the infant's thumb out of his mouth can be brought home rather sharply by suggesting to the mother that she yank the cigarette out of the mouth of her unsuspecting husband every time he starts to smoke.

Somewhere around six months of age most infants develop a fear of strangers. Mother is likely to be apologetic for her infant's behavior and explains that she has not had him out among people very much. Again she needs to be reassured that such an occurrence is a normal intelligence reaction which will disappear around ten or twelve months of age. Mentally deficient children are not able to differentiate between familiar features and those of strangers. If one is imaginative, it is not too difficult to speculate that "fear of strangers" is a protective reaction that at one time served a useful purpose. When danger threatened in the appearance of something unfamiliar such as a roaming forest animal in search of lunch, the lusty howl of the threatened infant quickly brought father with his stone ax to the rescue.

Along about the end of the first year infants develop the habit of body curiosity. They poke their fingers into their ears, into their navels, and girls into their vaginas while the boys handle their genitals. Sometimes the girls sit with one finger poked into the vagina while with the other they twist their hair or possibly suck a thumb. Mother doesn't mind the ear very much, although practically all mothers at one time or another request that the ears be examined. Nor does she object particularly to explorations of the navel with the examining finger, but she can no longer restrain herself when the curiosity extends to the genitals. It may or may not help to point out to her that so far as the baby is concerned there is no difference between his genitals and his big toe. The sex idea is in the adult mind, not in the infant's. The stage of body curiosity will pass whether she does anything about it or not, but it is best to ignore the whole thing.

But when the second year approaches, a new set of circumstances arises which makes the first year like a veritable millpond by comparison. Now cortical development has proceeded to the point where the infant is capable of having ideas of his own, and furthermore he has developed motor ability to enable him to attempt to put his ideas into effect. He is an individual in the family circle who has to be taken into account. Whether the family is to live in peace or turmoil depends to a great extent upon how situations are handled. To my way of thinking the second year is the most important of all the formative years. It is my practice to spend a half hour, sometime between the tenth and twelfth month, with the parents apprising them of what lies ahead.

The conversation goes something like this.

"You've had your easiest year. You could put the baby in his bed or in his play pen and he'd stay there. Feeding hasn't been much of a problem. But in the year ahead of you you're going to be confronted with an entirely different situation. It's a year when the baby will be forming many fundamental health habits or behavior attitudes. You'd like them to be good ones so you can live with him pleasantly, but whether he develops good attitudes of behavior or bad ones depends in large measure upon how you manage him. What are the behavior attitudes with which you'll be dealing? Well, they are fundamental ones of eating, training, sleeping. temper tantrums and play. Let's take up each one of them."

First there is eating (I continue to the parents). Sometime in the next few months your baby will probably begin to slow up in the zest with which he has always gone after his food. He may turn down his vegetables or his milk. What you do at this time may determine whether or not you have an eating problem on your hands for many years to come. If you do have an eating problem, the fault will be yours, for it can be avoided. Why does the baby slow up in the consumption of his food? If you will look at his growth chart you will notice that he gained some 14 to 15 pounds in weight his first year. During the second year he is going to gain only about 6 pounds and during the next succeeding three or four years he will gain only 4 to 5 pounds per year. Obviously it requires less food when growth is slow than when it is rapid. As he approaches the puberty spurt and growth again is rapid, he will again consume large quantities of food. If you attempt to poke into him the amount of food you may have in mind, when he isn't hungry and when he doesn't want it and doesn't need it, you'll have a feeding problem on your hands. You should never coax, urge or force him to eat a mouthful he doesn't want. Merely offer him the spoon and if he turns his head away put the spoon down entirely unconcernedly. Give him a few more chances, and if he still refuses, the meal is over. To eat when one is hungry is a pleasant experience, but to be forced to eat when one isn't hungry is unpleasant. It usually leads to conditioning against the spoon and to an emotional upset over the whole performance of being fed.

Soon now he'll make his first attempt to feed himself with his hands. His first attempts at self help should be encouraged—not discouraged by keeping his food out of his reach or by tying up his hands so you can have an unimpeded pathway to his mouth. Of course, it's messy! He may get the food in his hair or spill it on the floor. But with a little experience he'll improve, and before long he'll graduate to a spoon because it works better. By a year and a half of age he'll be doing a good job of feeding himself and from there on you should turn the business of eating entirely over to him. Many children get all the food they need in one or two main meals a day. Be satisfied with this and don't insist upon his eating all of the nice meal you've prepared for him three times a day. Remember too that children are notoriously dawdlers. Don't expect him to sit down to the table, tuck his napkin under his chin and go at the business of eating like an adult does. That's not the way children do. Give him ample time at his own table and chair from which he is free to make curiosity-satisfying excursions at his will. Sometimes, I think it is unfortunate that nature didn't equip children with the same instinct it did dogs to take a bite out of anyone who interferes while the meal is being eaten. I've gone into this eating habit in some detail because it is one of the commonest jams parents get themselves into. "My child won't eat" is the complaint I hear most often in my office in the pre-school age child. What you parents actually mean is "my child won't eat what I want him to" and your estimations are usually based upon adult standards.

Now let's talk about training. That's another bad situation you parents frequently get yourselves into. You go at it too early and too vigorously. You measure success by how many bowel movements and how many urinations you get in the toilet. Oftentimes the child becomes resentful at being put on the toilet so frequently, and if forced becomes conditioned against it and will have nothing more to do with the contraption until the unpleasant memory experience is forgotten. Real training is not possible until the child is sufficiently mature to instinctively want a place to deposit his stool and his urine. Several times I have persuaded mothers to make no attempt at bowel training until the child himself made the first overture. One mother was particularly willing to do this because she had had a horrible time with her first child. This time, the child was twenty-two months old when he began to say "go, go," went to the toilet by himself and within a

week was completely trained. When training is begun, the approach should not be to catch every stool or every urination, but rather to teach the child how people use toilet seats. For this purpose a nursery chair works better. If a toity seat on the adult toilet is used a stepladder should be provided. The child should be directed to go to the toilet seat as near to the time as possible when a bowel movement may be expected. He should then be told to get his pants off, and you, his mother, should assist as much or as little as is necessary. Then direct him to sit down, but have him do it himself. Show him where the toilet paper is and have him use it himself. Let him get off the toilet by himself and put his own pants on with whatever assistance is necessary. Contrast this with the usual procedure where the mother carries the child to the toilet, lays him down on the floor or a bed, takes off his pants herself, places him on the toilet, wipes him herself, lifts him off, puts his clothing back on, and then lets him go. Mother is beautifully trained, but the child has had no responsibility whatever. I have a number of children in my practice who at two years of age could go to the toilet entirely by themselves. I should probably add to this that I have no particular objection to mothers who wish to place their infants on the toilet seat at an earlier age in an attempt to "catch" the bowel movement. Oftentimes this succeeds very well, but there should be no illusion about calling it training. It's not. It's merely "catching" and should be abandoned at the first sign of objection on the infant's part.

Sleep disturbances are common between one and three years of age. Frequently these have their origin at a year or so of age when the child first learns to pull himself to his feet. Whereas, formerly, when put to bed, he was content to lie quietly, now, with his newly acquired ability, he pulls himself up, shakes the side of the bed vigorously and demands to be taken back into the family circle. If the mistake is made of complying with his wishes the first time, it may be expected that the performance will be repeated nightly and perhaps many times throughout the night. One poor woman brought her child to my office who had been up six and eight times every night for a solid year, and the habit had started under the exact circumstances described above. Occasionally, an infant is encountered who has never acquired a good sleeping habit. Usually these are infants who had "three months colic" and the faulty sleeping habit acquired at this time has simply continued.

The answer is not to be found in sleeping bags, restraining jackets or tying the child down in bed, but rather to teach him that once he is put to bed it is expected that he will stay there during the night. He should not be taken out to be fed, rocked or taken into bed with the parents, but on the other hand he should not be left alone to go into a frenzy of frustration and perhaps of fear over being left alone in a dark room with the door shut. Mother may come in, give him a pat and go out again. Dr. Spock advises that the mother tell him firmly to go to sleep, then leave him. Sometimes the use of a sedative drug, such as phenobarbital, may be given regularly for not longer than one week, in hopes of breaking up the undesirable sleeping pattern and establishing a new one.

Temper tantrums also have their beginning around the first year and are to be expected for a couple of years more. Children and adults have the same emotional setup, but it takes more of a stimulus, or should at least, to call forth a temper explosion in an adult. The infant gives rise to a temper tantrum when he becomes frustrated over something he is trying to accomplish and can't quite do it, or when he is restrained from carrying out some project he has in mind. The adult who has driven around the block half a dozen times in search of a parking spot, finally finds one and is just about to back in when a car to the rear dodges into his place, is very likely to have a temper tantrum, not unlike the child. The treatment in the case of the child, at least, is not to throw a bucket of cold water on him, to spank him, to shut him in a closet, or even to put him to bed, all of which but add to his emotional upset. Rather should he be ignored, or if the task he has been attempting to perform has proven too difficult, a friendly helping hand may be proffered.

The outcome to be avoided is the continuation of the temper tantrums beyond the age period when they normally would have ceased, because the child has found that shooting a temper tantrum is an effective attention-getting device.

Finally, I should like to discuss with you (I'm still talking to the mother or the parents) what to do with your child during his waking hours now that he has outgrown his pen. You have two choices, one to let him have the freedom of the house, and the other to give him a large pen,

preferably a room with a gate at the door, where everything is his to do with as he wishes. Some parents take the attitude that they are going to have everything in their home just as it was before the baby came, and that they are going to teach their child to leave things alone. This to me is a foolish position to take. Here's a year-old child with the whole world of things and of people before him about which he has to learn. His curiosity knows no bounds. How is he to be expected to know that a lamp will fall over if he pulls on the cord or that it cost forty dollars? And yet the parents want to put the responsibility upon his immature shoulders of leaving their treasures alone. If the child is given the free run of the house, the least they might do is to remove temptation by putting out of his reach those things which they do not wish him to handle. Even so there will need to be a constant conflict between the mother and child, with the result that the mother's "no" before long conveys very little meaning to the child because he has heard it so often. A far better arrangement, it seems to me, is to give the child a place to play downstairs where he can have frequent social contact with his mother, where he can play uninterruptedly, and where she can perform her household or other tasks in peace. In the afternoon the child is entitled to a tour of exploration about the house, so that his education will not be neglected. At the end of the day both mother and child should be in a better physical and emotional state than where each has been in the hair of the other the entire day.

If you can emerge at the end of the two-year period with your child feeding himself, going to the toilet by himself, with a good sleeping habit, not using temper tantrums as an attention-getting device, and with a good play habit, you may assure yourself that you have done a good job. The chances are very good that you will be living in peace and happiness with your child and thoroughly enjoying the experience. During the third year your child can learn to undress and dress himself with the exception of lacing his shoes. He can also learn to take his own bath. I would far rather the child did a poor job of bathing himself, yet doing it himself, than have you do a perfect job and do it yourself. Thus by the age of three your child can feed himself, go to the toilet by himself, undress and dress himself and bathe himself. In other words, he is almost entirely self-sufficient in his personal habits. But to secure this kind of habit training requires patient teaching on your part. Too often you mothers want to do everything for the child yourselves because you can do the task quicker and so be free to do something else. It will be better, however, if you take advantage of your child's developing capabilities and teach him to do things for himself when he has developed to the point where he is able. I am convinced that a child raised in this way has a far better start in life and will make a better adjustment in school than the child who expects his mother to do everything for him. (Thus ends the discourse.)

Parents need to understand that their role in the years of infancy and during the pre-school years ought to be that of a teacher rather than a dictator. Over-indulgence, over-protection and over-discipline are all to be avoided.

While discussion in this paper has been limited to some of the more common characteristic developmental behavior patterns observed in the first two years of life, it should be emphasized that succeeding age periods throughout childhood and adolescence have equally characteristic patterns of behavior. Medical care of the well child, today, as supplied by the general practitioner and pediatrician, should include parent education about expected behavior in the various age periods through which the child passes. The periodic preventive examinations provide a good opportunity for the imparting of such information.

MSMS

STATISTICS

Ralph Brubaker of the Los Angeles Sales Executive Club, has issued the following information:

1. 13½ million old customers have died.
2. Over 17 million marriages have taken place.
3. Over 30 million babies have been born.
4. Over one-third of all present families in the United States have been formed.
5. Out of the 140-odd million people in the United States today, 63 per cent do not remember World War 1.
6. Fifty-two per cent do not remember a Republican administration in the White House.
7. Forty-eight per cent do not remember what conditions were like before World War II.
8. Forty-four per cent are consciously experiencing for the first time a free market in which they can buy what they want from normal assortments.

Neurogenic Hypertension

Chemical Approaches to Its Amelioration

By Fredrick F. Yonkman, M.D.
Summit, New Jersey

IN 1935 HEYMANS[12] proposed that regional vasospasm might play an important role in the genesis of hypertension. This hypothesis had been favorably received by a few[9,27] almost from its inception, but only in recent years has his concept won rather general acceptance.[22,23]

One obvious approach to the problem of therapy, from a chemical point of view, would be that of ameliorating individually the effects of many of the hypertensive components cited above. But at first glance this would seem too impractical an approach to consider seriously. If sympathetic predominance, or let us say, marked sympathetic control of certain blood vessels to the point of vasospasm, be an important primary etiologic factor leading to the production of many of the chemical items cited (Fig. 1), why not approach the problem from the point of view of blocking such sympathetic predominance by effecting an adequate adrenergic blockade?

TABLE I. PRESSOR SUBSTANCES POSSIBLY RELATED TO HYPERTENSION*

Name	Source	Accessory Conditions	Chemical Nature	Pharmacologic Action	Obtained Pure	Found in Hypertension	Similarity to Hochdruckstoff
Proteins							
Renin	Kidney	Renal ischemia	Protein	Prolonged	No	Acute	Yes
VEM	Kidney	Renal ischemia and anoxia	Protein(?)	Prolonged	No	Yes	Unknown
Prolonged pressor subs.	Kidney and blood	Hypotension (renal ischemia)	Protein	Very prolonged	No	(?)	Unknown
Peptides							
Hypertensin	Globulin	Renin	Peptide	Acute	No	No	Yes
Pepsitensin	Globulin	Pepsin	Peptide	Acute	No	No	Yes(?)
Serotonin	Blood	Standing	Peptide	Acute	Yes(?)	No	Unknown
Amines							
"Amines"	Blood	Anoxia and ischemia	Amine	Acute	Yes	Yes	Probably
Norepinephrine	Tissue	Nervous stimuli	Amine	Acute	Yes	(?)	Yes(?)
Urosympathin	Urine	Nervous stimuli	Amines	Acute	No	Yes	Unknown
Von Euler's substance I	Blood and tissues	Nervous stimuli	Norepinephrine	Acute	No	No	Yes(?)
Victor's material	Kidney	Anaerobic autolysis	Tyramine(?)	Acute	No	No	Unknown
Pherentasin	Arterial blood	Hypertension (renal)	Aminopeptide (?)	Prolonged	No	Yes	Unknown
Nicotine bases							
Lockett's base	Urine and blood	Renal ischemia	Complex alkaloid	Acute	No	Experimental only	Unknown
Urohypertensin	Urine	Renal ischemia	Nicotine base(?)	Acute	No	Yes(?)	Unknown
Others							
Nephrin	Kidney	Renal ischemia	Unknown	Prolonged	No	Yes	Unknown
Desoxycorticosterone	Adrenal cortex	Salt and hypertension (?)	Steroid	Prolonged	Yes	Certain types (?)	Yes(?)

*List taken from literature. Where ? is shown, characteristic of material is in doubt. Chemical identification and pharmacology of most of these substances have been insufficiently studied.
From Schroeder, H. A. and Olsen, N. S., Advances in Chemistry Series, No. 2, p. 5, 1950.

The chemical substances which have been found to be associated with experimental and some clinical hypertensives are numerous, and they have been well tabulated by Schroeder in Table I.[22]

A glance at Figure 2 would indicate possible avenues of approach or points of attack for the production of such a blockade. Phenobarbital or other similar depressants may be of some value in dampening the effects of cerebral outflow to important sympathetic centers either in the hypothalamus or lower in the cephalo-spinal axis, resulting in a diminished insult to the blood vessel walls, particularly in the region of the kidney.

Presented at the eighty-fifth annual session of the Michigan State Medical Society at Detroit, Michigan, September 22, 1950.

Dr. Yonkman is director of research, Ciba Pharmaceutical Products, Inc., Summit, New Jersey; lecturer in pharmacology and therapeutics, Columbia University, College of Physicians and Surgeons.

The blood vessels may be approached *directly* by the action of vasodilators such as the nitrites, for example, but these agents do not act by establishing an adrenergic blockade.

so, since it also blocks parasympathetic ganglia, leading to undesirable symptoms such as dysphagia and atony of the gastrointestinal tract and bladder. Furthermore, it is limited primarily to the intra-

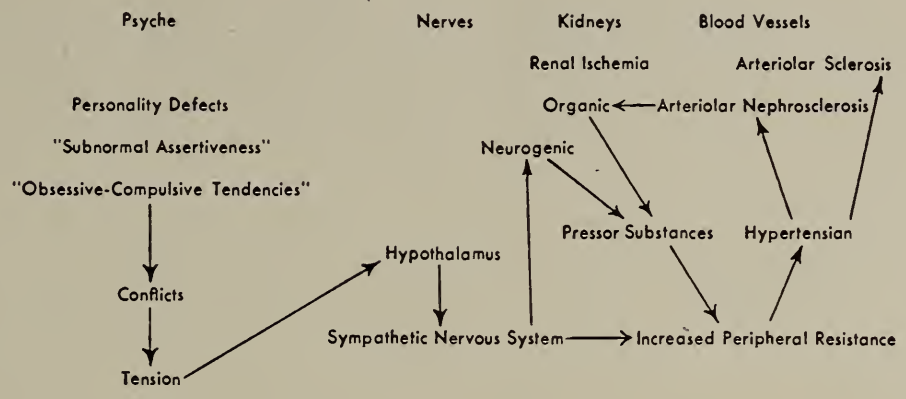


Fig. 1. Pathogenesis of psycyhoneurogenic hypertension. From Schroeder, H. A., and Olsen, N. S.: Advances in Chemistry Series, No. 2, p. 4, 1950.

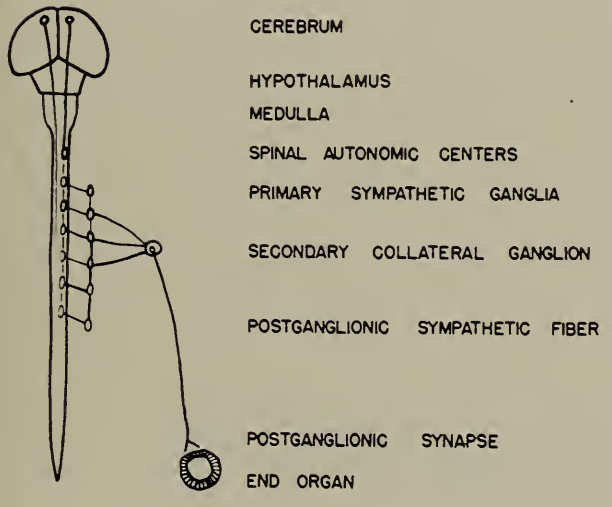


Fig. 2. Adrenergic control.

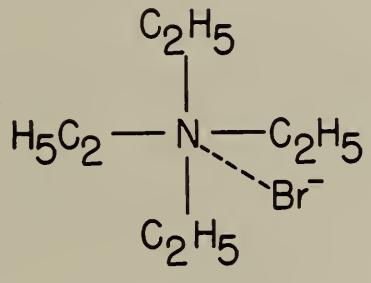


Fig. 3 *(left)*. Tetraethylammonium bromide.

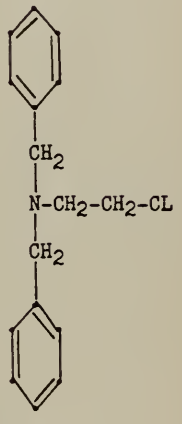


Fig. 4 *(right)*. Dibenamine. N,N-dibenzyl-β-chloroethylamine.

True blocking agents include Etamon (tetraethylammonium chloride), yohimbine, Dibenamine and some of its analogues, Priscoline (2-benzyl-imidazoline), Regitine, Benodaine, Dihydroergocornine and other dihydro derivatives of ergotoxine. Other drugs which act still differently are veratrum viride and some of its more concentrated preparations in the form of Veriloid, Vertavis and Veratrone, and a new compound, now in clinical trial, known as C-5968, which is a hydrazinophthalazine derivative.

Although Etamon (Fig. 3) is an effective sympathetic ganglionic blocker, it is not specifically

venous route of administration and therefore offers practical complications for everyday use.

Dibenamine (Fig. 4), although very effective as an adrenergic blocking agent,[26] likewise suffers from its markedly irritating capacity which limits it chiefly to intravenous usage at the present time. The hope has been expressed that some of the new congeners of Dibenamine may be more effective and less toxic after oral administration.

Priscoline (2-benzyl-imidazoline), although an effective vasodilator because of its combined histaminic and adrenergic blocking actions, has proved to be disappointing in the treatment of

neurogenic hypertension (Fig. 5). Not only are high doses required, which lead to an increased severity of side effects, but in the occasional patient who might exhibit a satisfactory hypotensive response to Priscoline, refractoriness to the drug appears within the relatively short time of a few weeks.

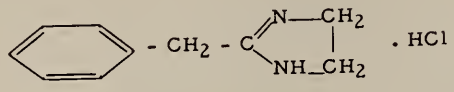


Fig. 5. Priscoline. 2-benzyl-imidazoline hydrochloride.

Some of the more recently introduced compounds in this field are the concentrated preparations of veratrum viride known as Veriloid, Veratrone and Vertavis. These are not blocking agents in the same sense that Etamon is for ganglia and Dibenamine and Priscoline are for adrenergic nerves, but they do cause a favorable degree of hypotension (Fig. 6)[25] in many patients through a different mechanism which seems to be the algebraic sum of these drugs' effects on the vagal nucleus, producing bradycardia, peripheral vasodilatation and slowing of the heart rate through some "anti-accelerator" effect, probably directly

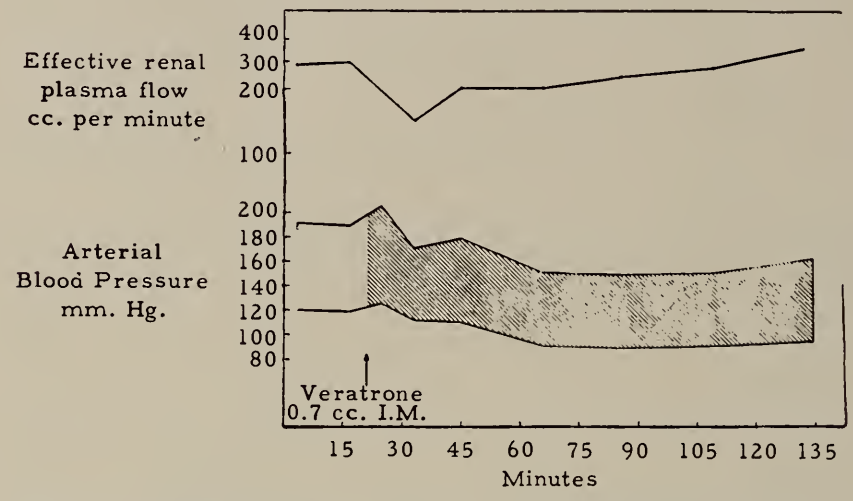


Fig. 6. From Wilkins, R. W.; Fries, E. D., and Stanton, J. R.: J.A.-M.A., 140:263, (May 21) 1949.

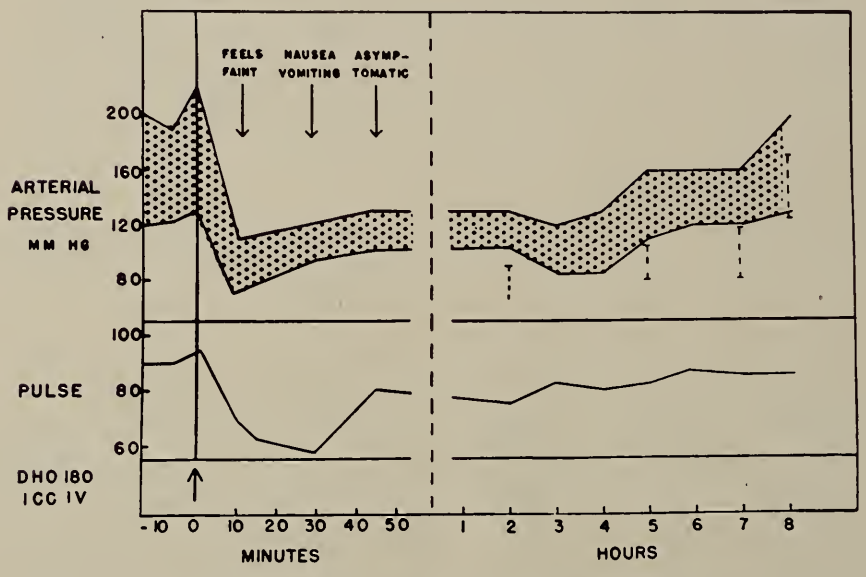


Fig. 7. The typical response to the intravenous administration of 0.5 mg. (1 c.c.) of dihydroergocornine (R.P., woman, aged twenty-three, with essential hypertension). The short vertical broken lines on the right half of the chart indicate blood pressure recordings made with the patient in the erect position. From Am. J. M. Sc., 216:164, (Aug.) 1948.

upon the pacemaker tissue, as Krayer[14] contends for Veratramine and Jervine. Most reports on the purified fractions are somewhat conservative since many patients who experience a satisfactory

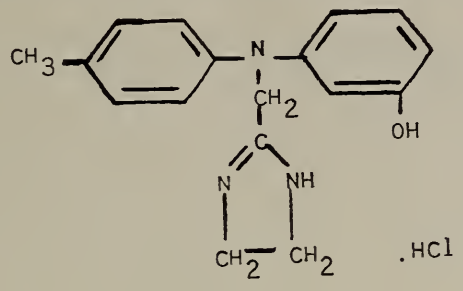


Fig. 8. C-7337. The hydrochloride of 2-[N-(p'-tolyl) - N - (m'-hydroxyphenyl)-aminomethyl]-imidazoline.

The dihydro derivatives of ergotoxine, namely Dihydroergocornine, Dihydroergocristine and Dihydroergokryptine, when given alone (Fig. 7)[5] or when combined in the form of CCK 179, seem to be quite effective as hypotensive agents. The status of this combination of compounds (Hydergin-Sandoz) has not been sufficiently clarified as yet, but there are indications that a certain degree

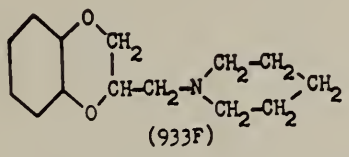


Fig. 9. Benodaine. 2-(1-piperidylmethyl)-1,4-benzodioxan.

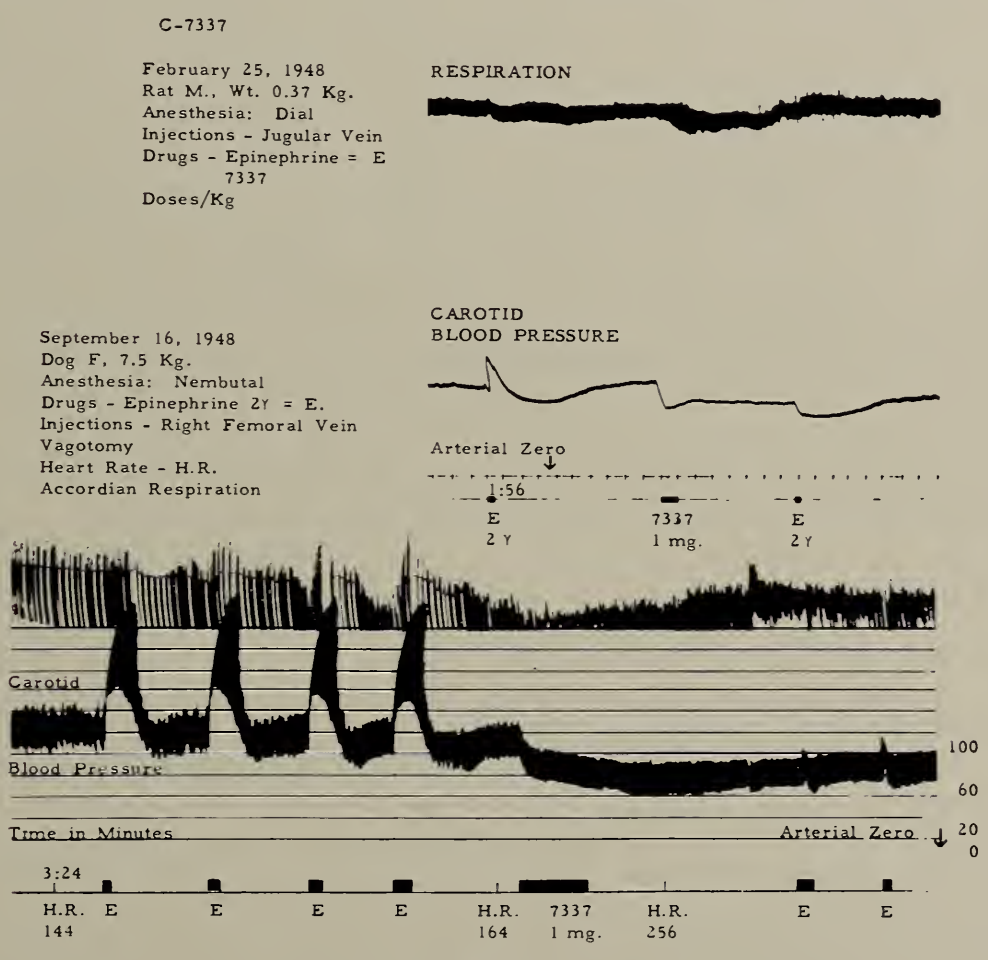


Fig. 10.

degree of hypotension under the influence of these drugs likewise suffer rather severe side reactions, particularly nausea and vomiting. If the latter could be obviated, these purified preparations of veratrum viride might offer real promise in the treatment of the neurogenic hypertensive patient. of tolerance or refractoriness develops quite readily to these agents as it does to other adrenergic blocking drugs.

Regitine (C-7337) (Fig. 8)[15] and Benodaine (Fig. 9)[6] are both rather potent adrenergic blocking substances. They would seem to be of special

use in a limited field such as the detection and surgical removal of a pheochromocytoma. The inhibiting effects of Regitine on the vasoconstrictor activity of epinephrine[16] and norepinephrine[17,24] can be demonstrated readily (Fig. 10).

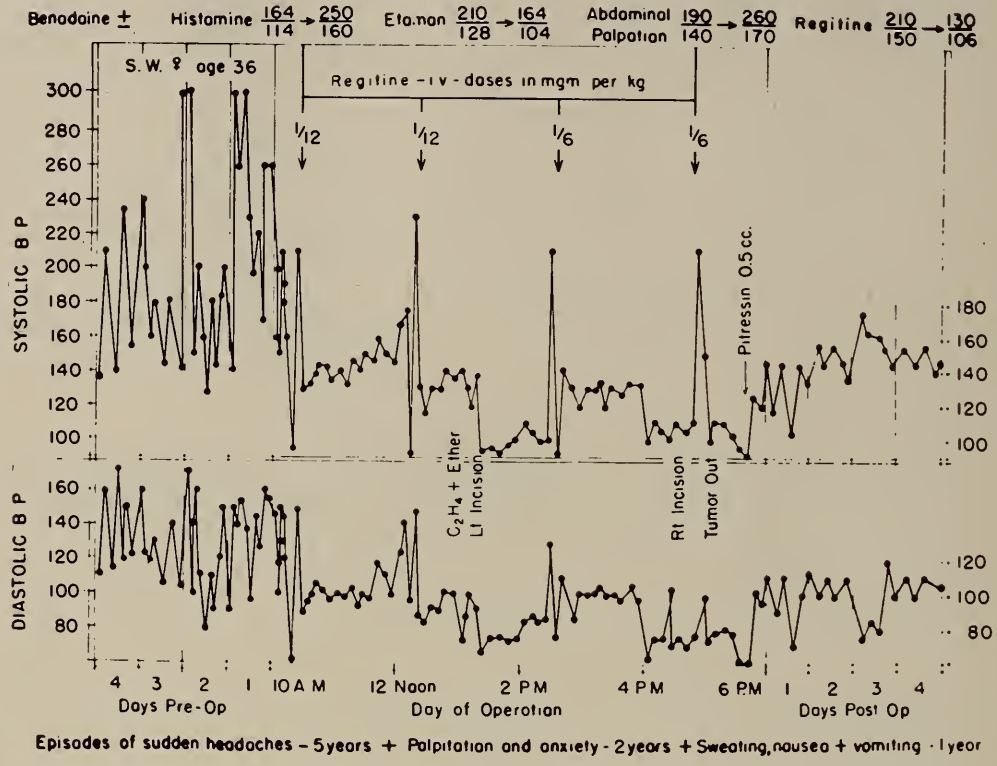


Fig. 11. Pheochromocytoma.

In the clinical subject afflicted with a pheochromocytoma, Regitine produces a marked drop in pressure, as indicated in Figure 11 as reported by Grimson.[7,10] The decreased blood pressure can be maintained fairly well at a desirable low level by repeated intravenous injections of very small amounts of Regitine. This preparation is devoid of irritating properties and so is readily administered intramuscularly and the clinical application of this feature has been exercised by Grimson. In his hands so small an amount as 5 mg. in one of his patients effected a very desirable degree of hypotension,[8] indicating, apparently, that the patient harbored a pheochromocytoma.

Because of the marked anti-adrenergic blockade effected by Regitine, one would feel inclined to anticipate that chronic administration of the drug would offer real promise in the treatment of the neurogenic hypertensive subject. Unfortunately this does not seem to be true. Although the drug, either parenterally or orally administered, does produce a definite and favorable degree of hypotension in many subjects, this effect, as with other adrenergic blocking agents, is not maintained in most instances. This is the opinion of several critical investigators in this field. The reason for such refractoriness is unknown. Theoretically it could be associated, at least in part, with the tachycardia which is frequently observed, in varying degrees, during the administration of Regitine. Grimson is of the opinion that Regitine is potentially the most valuable adrenergic blocking agent available today and that if some means could be found to control or regulate, if not completely eradicate, the associated tachycardia, there might be real hope for the treatment of neurogenic hypertension with this and some other added agent.

In an effort to circumvent this refractoriness to Regitine and other similarly acting agents, it seemed logical that a therapeutic regime should be so designed that there would be little if any opportunity for such a refractory state to develop. Such a regime would include the appropriate alternation of Regitine with some other type of hypotensive medicament which would produce a drop of blood pressure by a mechanism different from that produced by Regitine. Freis of Georgetown

University was the first to demonstrate successfully the logic of this approach, as indicated in Figure 12.[2,4]

Although these observations were made on but one patient whom Dr. Freis has thus far studied in this manner, they suggest a logical approach to the problem on the basis of different mechanisms at play while the patient is under the influence of various types of drugs. Before the refractoriness to Regitine, for example, had been established, the drug was withdrawn, but the desired hypotensive level was maintained by Veriloid acting apparently through a different mechanism. This technique of alternation indicates the necessity of approaching the treatment of the neurogenic hypertensive patient from more than one point of view. If the total picture represented in the neurogenic hypertensive subject could be modified, now at one point and then again at another and probably even at a third or fourth point without permitting the refractory state to develop at any point of attack, one might be more successful in offering some degree of relief to his patient.

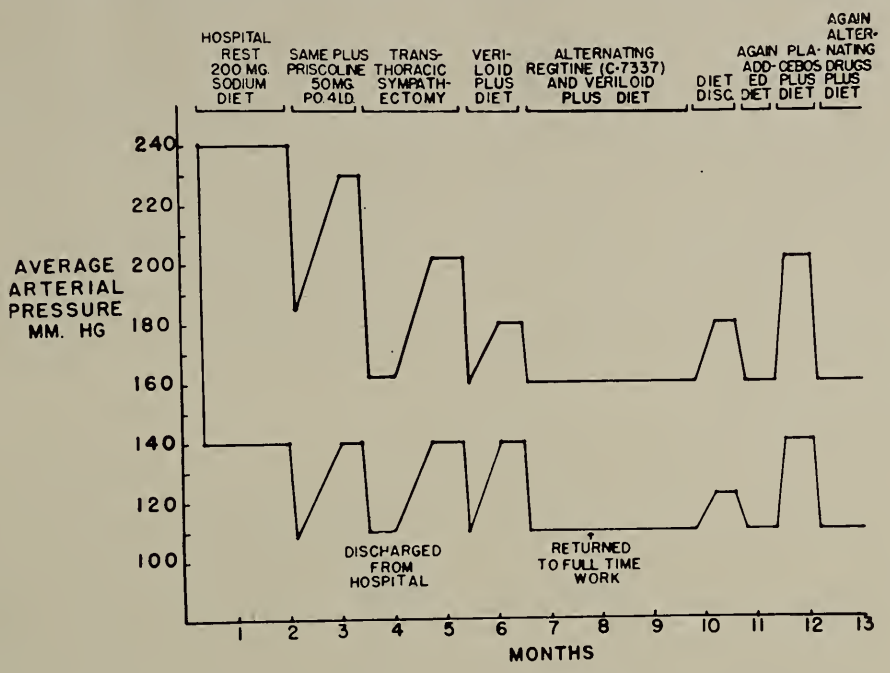


Fig. 12. Hypertension. From Freis, E. D.: Personal communication.

TABLE II. SLOWING EFFECT OF VERATRAMINE ON REGITINE-INDUCED TACHYCARDIA*

Time	Dose per kg.			Pulse Rate		
	Regitine	Veratramine	Route	Normal	After Regitine	After Veratramine
10:55				160		
10:59				160		
11:05	2.5 mg.		Intestine		160	
11:10					200	
11:17					200	
11:19		50γ	Intestine			200
11:27						176
11:32						184
11:34		50γ	Intestine			184
11:42						184
2:49						148

*Male Dog—Weight 12 kg.
Anesthetic—Sodium pentobarbital.

If, as previously suggested, tachycardia following treatment with Regitine, accounts in part for a restoration of pressure to near hypertensive levels (refractoriness?) it would seem most desirable to control this unwanted effect. We have studied various agents in our laboratory,[17a] and Table II illustrates the favorable effect of Veratramine in controlling Regitine-induced tachycardia in the anesthetized animal. Not only does Veratramine,

intravenously, *correct* this increased heart rate, but after oral administration the drug also can successfully prevent it. This antagonistic feature is now being studied clinically.

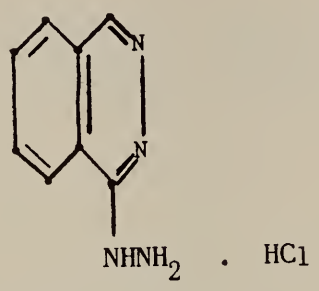


Fig. 13. C-5968. 1-hydrazino phthalazine hydrochloride.

action has been presented by Freis[3] by certain experiments in man.

Reubi has demonstrated the favorable effect of C-5968 on renal clearance[19,20] (Table III). Myers of Wayne University has confirmed this in some patients but has found it lacking in others.[13] Schroeder of St. Louis has seen some favorable effects of the drug in neurogenic hypertension,[21] and he has been sufficiently encouraged to pursue the problem.

One of the side reactions associated with C-5968, as reported earlier by Grimson,[8] is that of severe headaches. On the other hand, Myers, in a series of ten patients, reported that seldom was headache encountered and never to a degree requiring with-

TABLE III

Patient	Dose	Period No.	Period Durat.	Art. Press.	CPAH	CT	F.F.	R.
R.	20 mg.	1-3		200/105	429	128	0.299	1235
essential hypertension		4	31′	180/88	531	132	0.248	811
		5	29′	175/70	593	116	0.195	627
		6	31′	155/63	525	101	0.192	559
K.	12 mg.	1-3		180/100	432	86	0.200	1001
essential hypertension		4	22′	180/100	520	97	0.187	905
		5	12′	180/100	568	102	0.179	831
		6	16′	180/100	628	108	0.172	751
D.	10 mg.	1-3		170/80	409	71	0.173	943
essential hypertension		4	23′	170/75	501	73	0.146	749
		5	26′	155/70	487	68	0.140	657
		6	18′	160/55	555	74	0.134	524

Effects of i.v. injection of 5968 CIBA on arterial tension and renal hemodynamics. Arterial tension (A.P.) in mm Hg, renal blood flow (CPAH) in cc. plasma/min., glomerular filtrate (CT) in cc/min. The renal resistance (R) calculated according to Lamport's formula (13), corresponds to the sum of afferent and efferent resistances, expressed in mm Hg min. 10-4/cc. The filtered fraction (F.F.) is equal to CT/CPAH. From Reubi, F., Helv. Medica Acta, 16: 297, (Sept.) 1949.

We move now from the peripheral blocking area to a central point of attack, particularly in the region of the hypothalamus. There have been recent reports on the basic pharmacologic action of C-5968, known chemically as 1-hydrazinophthalazine[1,11] (Fig. 13).

Although this drug is partially adrenolytic, that is, antagonistic to the effects of adrenaline (epinephrine), relatively large doses of it are required to produce this type of action. It may have a direct effect upon the blood vessels, and in particular the renal vessels, but here this action seems to be variable. Its chief effect seems to be centered in the region of the hypothalamus since, in the experimental "spinal" animal, in which the cervical spinal tract had been severed, C-5968 had little if any activity whereas in the intact animal, the drug had a gradual, limited hypotensive effect. Evidence supporting this localization of drawal of therapy or adjunctive therapy in the form of anodynes. We were of the opinion that if C-5968 were an effective vasodilator in man, as observed in the experimental animal, headache, if experienced, could well be due to a general vasodilatation of certain cerebral or centrally located vessels, akin to that associated with congestive migraine, and therefore the logical preventive or corrective agent might be ergotamine tartrate (Gynergen). This suspicion was amply confirmed by Prandoni,[18] who reports that when headache appeared it could be nicely controlled by extremely small amounts of ergotamine tartrate. Thus with the correction of this important complaint of headache, should it occur, it would seem that C-5968 would warrant extensive clinical trial, the more so because the drug can be readily administered by the oral route. To be sure, a refractoriness might well be developed to C-5968, as well as to Regitine,

Veriloid, the dihydroergot compounds, et cetera, but here again nicety of judgment on the part of the internist in terms of properly selected and appropriately alternated therapy, as exercised by Freis, might prove to be advantageous.

The problem is complex and there obviously are many approaches to its solution. Some of these have been presented, although superficially, and it would seem that one of the most hopeful approaches may be that of properly applying the principle of adrenergic blockade, either through a central, ganglionic or peripheral point of attack with the hope that a labile neurogenic hypertension may not proceed to the point of a fixed nephrogenic hypertension and its disturbing sequelae.

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TREATMENT OF EPILEPSY

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Aneurysms and Arteriovenous Fistulas

By Harris B. Shumacker, Jr., M.D.
Indianapolis, Indiana

ARTERIAL ANEURYSMS have been a matter of considerable interest to the medical profession since the time of Galen and this has been true to perhaps even a greater degree in the case of arteriovenous fistulas since their recognition by William Hunter in the middle of the 18th Century. Aneurysms develop as the result of degenerative arterial disease, congenital malformation, infection and trauma. Though the other causes are occasionally responsible for the development of arteriovenous fistulas, most of them are the result of direct injury. One of the principal causes of arterial aneurysms is being brought under better control. The public campaign to bring the problem of syphilis out into the open and to emphasize the importance of early treatment, together with the development of effective therapeutic methods which require only a short period of treatment in contradistinction to the very long periods formerly necessary, gives promise of drastically reducing the incidence of this disease and of inadequately treated cases which may become complicated by the development of aneurysms and other late developments. On the other hand, no progress has as yet been made in the prevention of such degenerative arterial diseases as arteriosclerosis and medionecrosis and as the life-span of man is being prolonged, more individuals are suviving to develop manifestations of these disorders. The recurrence from time to time of large-scale warfare and our general inability to eliminate automobile, industrial and other accidents has served thus far to insure a small, but definite, supply of traumatic aneurysms and fistulas.

Largely by virtue of my having had the direction of one of the three army Vascular Centers during the last war, I have had an unusual opportunity to examine and treat large numbers of patients with these lesions. I have reported elsewhere in detail some of the experiences which my associates and I have had with this problem and certain experimental observations which those clinical experiences have prompted us to undertake.[1-23]* It is my purpose here to review in a brief manner some of the more important features of the subject.

The diagnosis of an arteriovenous fistula is rarely difficult. There is almost invariably a continuous thrill palpable over the region of the fistula and there is audible a continuous bruit. The presence of a continuous thrill and bruit in any location other than the precordial area is almost pathognomonic of an arteriovenous fistula, similar findings being present for all practical purposes in no other disorders except for certain cardiac or extracardiac shunts such as patent ductus arteriosus and for that uncommon and most intriguing condition which we term a venous hum. If the arteriovenous fistula is temporarily shut off by direct compression or by an effective tourniquet, a slowing of the pulse and an elevation of blood pressure occur characteristically. There may also be present other suggestive features such as an abnormal pulsation in the region of the fistula, unusually large superficial venous channels in the affected extremity, perhaps with visible arterial pulsation in some of them close to the fistula and, in the case of lesions present in childhood, overgrowth of the affected part.

The recognition of an arterial aneurysm also seldom presents any real difficulty, though the diagnosis is often not nearly so clear-cut as is the case with arteriovenous fistulas. Typically there is visible and palpable an abnormal pulsation, true expansile pulsation of the aneurysmal mass, and an associated systolic thrill and bruit. The thrill and bruit are, however, by no means constant, and when the aneurysm is deep within the body or covered by large muscle mass, or more particularly by a bony cage, the mass itself and its expansile pulsation may be neither visible nor palpable. Fortunately in such circumstances fluoroscopic and radiologic examination is most helpful. The chief factors which must be considered in the differential diagnosis are the systolic thrill and bruit, which not infrequently result from partial occlusion from external pressure or partial intrinsic narrowing of an artery, and the mass which, by virtue of

From the Department of Surgery, the Indiana University Medical Center, Indianapolis, Indiana.

Presented at the Eighty-fifth Annual Session and Postgraduate Conference of the Michigan State Medical Society, Detroit, Michigan, September 20-22, 1950.

*In these reports are bibliographies which include references to the more important relevant publications, and, for the sake of brevity, they will not be referred to in this review.

proximity to a large artery, exhibits a transmitted pulsation associated perhaps also with a thrill or bruit as a consequence of its partial compression of the adjacent vessel. Arteriography has an important place in the diagnosis and localization of intracranial aneurysms and may occasionally be necessary in the case of intrathoracic or intra-abdominal aneurysms, but in general it is not needed to establish or rule out the diagnosis of peripheral aneurysms or arteriovenous fistulas. Furthermore, it is not commonly necessary for the accurate localization of aneurysms and fistulas of the peripheral vessels, though it is occasionally most useful in this respect, especially in cases in which the collateral circulation is seemingly inadequate and in which the lesion appears to involve the main arterial stem but could conceivably involve instead an adjacent artery of relative unimportance in the circulation to the part.

The desirability of carrying out effective treatment once the diagnosis of aneurysm or arteriovenous fistula is established is based soundly upon the natural history of these lesions and upon their consequences. Though arterial aneurysms may be present for long periods of time without apparent harm, they are always potentially the source of considerable trouble and danger. They may become very painful; this is especially true in the case of aneurysms of the thoracic aorta and its main branches. As the result of compression or erosion, the aneurysm may bring about considerable dysfunction or even destruction of the organs adjacent to it. A subclavian, axillary, or brachial aneurysm may, for example, cause varying degrees of paralysis of the brachial plexus or of the nerves derived from it. An intrathoracic aneurysm may be associated with varying degrees of esophageal or trachial obstruction. Indeed, esophageal obstruction may be complete and the respiratory obstruction so severe as to bring about death itself. There may be marked erosion of adjacent bony structures, such as the vertebral bodies or the sternum or clavicle. Finally, there is always the possibility that the aneurysm may rupture and bring about rapid exodus from exsanguination.

While the effects of arterial aneurysms are principally local in nature, the harmful effects of arteriovenous fistulas, on the other hand, are principally general in character. I have previously mentioned the effect upon blood pressure and pulse and the changes which occur with occlusion of the fistula. The presence of a large arteriovenous fistula tends to bring about a progressive increase in blood volume. The most profound effect of the fistula is the increased burden of work which it imposes upon the heart. The cardiac output tends to be markedly increased. It is not uncommon, for example, to find in the dog that a femoral arteriovenous fistula will double the cardiac output. As a consequence, the heart increases in size, principally from dilatation but eventually from some hypertrophy as well. In studying the cardiac frontal area in a large series of young soldiers with peripheral arteriovenous fistulas of relatively short duration, my associates and I found the heart size to be increased in about half of them; a comparable percentage underwent a significant decrease in the size of the heart after operative obliteration of the arteriovenous fistula. If attention were directed only to those with fistulas of large size, the percentage with cardiac enlargement was greater; for example, a definite increase in the cardiac frontal area was present in about 85 per cent of those patients with fistulas involving the femoral vessels. The likelihood of early enlargement of the heart seems to be proportionate to the size of the artery involved, the size and age of the fistula, and the magnitude of the pulse and blood pressure response to temporary occlusion of the fistula. Furthermore, these changes seem to be related also to the location of the fistula with respect to whether it is caudad or cephalad to the heart—lesions situated caudad to the heart having the higher incidence of associated early cardiac enlargement. Cardiac dysfunction may proceed to the point of actual failure. It is an interesting fact that the slowing of the pulse, increase in blood pressure and decrease in cardiac output with occlusion of the fistula are evident with the very first beat of the heart. It is also an interesting observation that the change in blood pressure and cardiac output appears to be independent of the extrinsic innervation of the heart. A rare but serious complication of arteriovenous fistula is the development of subacute bacterial endarteritis. Though of less general concern, a fistula may also give rise to certain harmful local changes. In the growing child an arteriovenous fistula is commonly associated with hypertrophy and general overgrowth of the affected extremity. Though some time after the appearance of a fistula there generally is evidence suggesting increased circulation, there may be local ischemic changes soon after the formation of a fistula. In-

deed on occasions extensive gangrene may develop. In some instances there may persist a marked tendency to vasoconstriction with cyanosis, coldness, hyperhidrosis and sensitivity to cold. Furthermore, arteriovenous fistulas are quite often associated with saccular aneurysms, and though these aneurysms are frequently small, they may be large and may give rise to dysfunction from pressure upon adjacent structures.

It may be concluded then that it is desirable to forestall, if possible, the effects which may develop as a result of an aneurysm or arteriovenous fistula. The desirability of treatment, therefore, is evident, provided only that there is no great likelihood of spontaneous obliteration of such lesions. In a study based upon an analysis of 122 saccular arterial aneurysms and 245 arteriovenous fistulas, many of which were associated with one or more aneurysms, my associates and I found that a spontaneous cure, making operative treatment unnecessary, occurred in only 2 per cent of the arteriovenous fistulas and in 6.5 per cent of the arterial aneurysms. Though it is possible that a few additional instances of such spontaneous cure might have occurred had operative treatment been delayed indefinitely in the remaining cases, it seems unlikely that this development would have taken place often enough to have justified such delay. It is concluded that spontaneous obliteration of an arteriovenous fistula takes place so infrequently to make consideration of this possibility of little or no importance in reaching the decision as to the advisability of, or the most suitable time for, surgical treatment. In the case of saccular arterial aneurysms, satisfactory spontaneous cures take place a little more often, but again so infrequently that this possible occurrence should be given only very slight weight in considering the problem of treatment. In addition, it should be pointed out that such cures of the fusiform aneurysms which so commonly result from arterial disease are practically unknown.

In considering the problem of treatment of aneurysms and arteriovenous fistulas, the objective should be the cure of the lesion in such a manner as to subject the patient to the least possible risk of losing his life and to insure him of preservation of the best possible circulation and unimpaired function in the affected portion of the body. Safety to the patient demands competence on the part of the operator and familiarity with the special techniques of vascular dissection and repair. In general, unless one is dealing with one of those unusual circumstances in which it will be advisable to operate with a tourniquet, a safe approach implies that control of blood flow through the affected artery will be secured by first isolating the vessels proximal and distal to the lesion before approaching the lesion itself. Such a policy is fortunately quite compatible with a well-planned operative approach which can insure preservation of important adjacent structures such as nerves and which will result in no disfiguring or disabling scarring or contracture. Certain advances of this sort were possible because of the large number of patients who were available for treatment in special centers during the course of World War II. As examples may be cited the technique of safely approaching the vertebral vessels in their intraforaminal portion by careful removal of the overlying bony covering and the improved approaches to the popliteal vessels which obviate the necessity for transsecting the popliteal crease with the frequent postoperative development of contracture or ulceration.

The preservation of the best possible circulation to the part necessitates careful evaluation of the status of the collateral circulation before operation, if possible, and at the time of operation, as well as the use, when applicable, of those surgical techniques which maintain or restore the continuity of the affected artery. The testing of the collateral circulation is naturally dependent upon the location of the vascular lesion. Those relatively rare circumstances where an aneurysm or arteriovenous fistula involves the mesenteric vessels, for example, preclude any preoperative estimation of the adequacy of the collateral circulation. At operation, however, it would be important to occlude temporarily the affected segment of the vessel and to observe its effect upon the intestinal circulation before dividing the artery. A rather special problem is posed by intracranial or extracranial aneurysms and fistulas, the cure of which might necessitate ligation of the common or internal carotid artery. Thus far the best way of being certain of satisfactory collateral blood flow is to make sure that the patient can withstand prolonged compression of the affected carotid artery without neurological symptoms or signs. My associates and I have not found that a study of electroencephalograms made before, during and after such compression gives any information of value over and above what can be obtained from

the presence or absence of subjective or objective neurological alterations accompanying compression. By and large, if a patient can withstand compression of a carotid artery for half an hour without development of symptoms or signs, the artery can be divided with impunity.

In testing the collateral circulation to the extremities, very little information which can prove useful in evaluating the adequacy of the collateral circulation around the lesion or, in other words, the capacity of the limb to withstand ligation of the affected artery without serious reduction in circulation, can be obtained from a study of blood flow to the limb with the affected artery open. The foot, for example, may be warm, venous filling may be adequate, the pulses may be full and oscillametric studies may show excellent values without giving one any assurance whatsoever that the main artery to that extremity can be divided without disaster. Only in one sense do such studies help in evaluating the patient from this standpoint. If ischemic lesions are already present one must naturally be all the more concerned about the adequacy of collateral circulation, and if there is evidence of marked vasoconstriction in the affected extremity, and more particularly if this vasoconstriction tends to be persistent, one should be influenced in the direction of performing a sympathetic denervation before operation in order to be sure that an otherwise effectual collateral blood flow will not be reduced below the critical level by vasoconstriction. Testing of the collateral circulation before operation depends, for all practical purposes, principally upon certain observations which may be made with the involved artery occluded precisely at that level at which it is judged ligation would be carried out if this procedure were a necessary part of the operative cure of the vascular lesion. A number of such tests are of value but the most useful, I believe, is the Matas reactive hyperemia test. A convenient method of carrying out this test is to deprive the extremity of all blood flow by means of a constricting blood pressure cuff placed at a level somewhat below that of the vascular lesion. Sometime before the tourniquet is to be released, the aneurysm or the fistula must be obliterated by firm digital compression at the lowest level which will accomplish this result and this compression must be maintained until the test is over. It is wise to have a second observer check the effectiveness of this compression by making certain that any thrill or bruit which was previously present has been abolished. The cuff is now suddenly released and the distal portion of the extremity is observed. If a bright flush appears rapidly and extends to the distal portions of the extremity without delay during maintenance of the occlusion of the artery, and if there is no further improvement in the extent or intensity of the flush when the arterial compression is released, one may feel reasonably secure about the adequacy of the collateral circulation. If such a flush does not develop in less than two minutes, one should be very wary about proceeding with operation. This is a very useful test, but it does have certain necessary limitations; these are concerned with the accuracy or inaccuracy of the digital compression. If, for example, the compression occludes not only the parent artery which might have to be ligated but as well some collateral channels which might be preserved at the time of operation, the test would be indicative of a poorer collateral blood flow than actually exists. On the other hand, in the case of occlusion of the artery without occlusion of adjacent collateral vessels which communicate with the aneurysm or fistula in such a way as to necessitate their operative ligation, the test might indicate better collateral circulation than is actually present. It is very important in operating upon aneurysms or arteriovenous fistulas affecting the blood supply of extremities to drape the patient in such a way as to expose the hand or foot, and to make certain that its color and warmth is not seriously impaired by prolonged precise occlusion of the artery with a rubber-shod artery clamp.

If one is very careful to study the status of the collateral blood flow before and during operation, he will rarely ever have the disappointment of postoperative development of gangrene. Such an occurrence is, of course, still a very rare possibility even when the collateral circulation is adequate, being dependent upon subsequent thrombosis of important collateral channels. Though such thromboses are extraordinarily rare, the consequences are sufficiently grave to make rational the use for a period of time of anticoagulant therapy, provided that the operation has been accomplished with proper hemostasis and has not been carried out within one of the closed cavities where bleeding may occur without being recognized until the patient's life is endangered; this is the case with operations within the cranial, thoracic and peritoneal cavities. Under these circumstances, it

would seem wise, if anticoagulant therapy is to be used, to delay it for a number of hours after operation.

What can be done in those instances in which carefully performed preoperative tests are indicative of grossly inadequately collateral circulation? In the first place, there is some evidence to suggest that the longer the duration of an arteriovenous fistula the better the collateral circulation tends to become. Hence, some help may sometimes be forthcoming simply from waiting. There is little or no evidence to suggest, however, that collateral flow about an aneurysm commonly improves with the duration of the lesion. It has long been a practice, and certain observations substantiate its efficacy, to use intermittent prolonged occlusion of the affected artery. Such occlusion should be practiced whenever it is possible. Finally, sympathetic denervation has proved itself of very great usefulness in assuring maximal utilization of the collateral channels.

In the past it has generally been considered unwise to attempt to preserve or restore the continuity of the affected artery, and with the rarest exceptions, operators have felt content if the lesion could be extirpated and gangrene avoided. While the safe cure of the aneurysm or fistula with the avoidance of gangrene is the most important objective, it is nevertheless true that the limb may be preserved intact and yet with sufficient reduction in circulation so that a certain disability or annoyance follows. For example, there may be fairly severe intermittent claudication after division of the popliteal artery, even though circulation of the foot may be quite adequate at rest. After the ligation or division of an important artery, it is also possible to have apparently adequate circulation under ideal environmental circumstances but severe symptoms such as coldness and even numbness and paresis during exposure to cold weather. It seems to me desirable, therefore, to maintain the continuity of the affected artery or to restore it, whenever the artery is of real importance in the circulation of the extremity and whenever this procedure can be carried out with reasonable promise of its success. There are, of course, local circumstances which may prohibit such a procedure. For example, there may have already taken place thrombotic occlusion of the artery distal to the lesion. I believe, however, that my own personal experiences illustrate that the attitude of the operator is even more important than the precise condition of the involved vessels. In analyzing this factor, some years ago, I found that as long as I followed the practice of excluding from consideration for preservation or restoration of the artery all cases except those in which I could be rather certain that the anastomosis could be accomplished without undue difficulty and with utilization of quite normal arterial structures, such reparative measures were carried out in only 3 per cent of those instances of aneurysm or fistula involving the more important arterial stems. When a more aggressive attitude concerning this point was taken and such procedures were always carried out wherever they seemed to offer reasonable likelihood of success, the percentage was raised to 53.

The treatment of aneurysms of the aorta and of the origin of some of its major branches presents some special problems. Up to the present time attempts at treatment have been largely limited to three general methods. The first applies only to suitable cases of aneurysms of the abdominal aorta and involves the attempt to ligate, partially or completely, the aorta proximal to the lesion. The second attempts to bring about gradual sclerosis and constriction of the aneurysm or of the aorta proximal to it by envelopment with plastic materials which have an irritating sclerosing property. The first method has grave attendant dangers—principally because of the tendency for erosion and hemorrhage—and only a few successful applications have been reported. The second has apparently some real usefulness and is reasonably safe, though the sclerosis may, in rare instances, be progressive and lead to complete occlusion and gangrene.

The third method, that of internal wiring, has proved generally reliable and has the advantage of small risk and of applicability to aneurysms affecting all segments of the aorta. The benefit which follows seems to result from the effect of the coils of wire and the thrombosis which develops about them in reducing the size and expansibility of the sac and in increasing the thickness and strength of the wall of the aneurysm. Though it cannot be considered a curative measure, it yields rather gratifying results and occasionally it is followed by amazing improvement. Sometimes the sac becomes palpably firmer, smaller and pulsates less vigorously. Sometimes there occurs considerable relief from such symptoms as pain, dysphagia, or dyspnea which may have been present.

Experiences with the excision of aneurysms associated with coarctation of the aorta and restoration of aortic continuity by end-to-end suture or with interposition of a homologous graft, together with other experiences with vascular repair and transplantation. naturally raise the hope that certain aortic lesions may be treated by such curative surgical measures. It will be interesting to see whether such procedures will prove practically applicable.

Summary and Conclusions

The diagnosis of aneurysms and arteriovenous fistulas is generally not difficult. They are of considerable potential danger and have little likelihood of spontaneous cure. Their treatment is generally satisfactory.

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ANOTHER STUDY SHOWS ANTIHISTAMINICS INEFFECTIVE IN TREATMENT OF COLDS

Carefully controlled studies conducted at the University of Illinois College of Medicine and the Chicago College of Optometry "demonstrate that antihistaminic drugs do not prevent, abort, shorten, curtail, reduce or stop the common cold," according to Dr. Noah D. Fabricant of Chicago.

Dr. Fabricant, clinical assistant professor of otolaryngology at the university, reported these findings in the AMA *Archives of Otolaryngology*, published by the American Medical Association. He confirmed numerous similar studies in the United States and Great Britain.

"It was observed," he said, "that antihistaminic drugs are no more effective than placebos (harmless and inert pills) in aborting a cold and that there is no validity to the contention that antihistaminic drugs are more effective if taken within a short time after the start of a cold."

Dr. Fabricant's studies involved 139 students at the Chicago College of Optometry and seventy-four students at the University of Illinois College of Medicine. They were conducted through the winter and early spring of 1950.

Role of the Adrenal Cortex in Certain Peritoneal, Pleural and Pericardial Effusions

By Robert C. Moehlig, M.D.,
and
Albert J. Steinbach, M.D.
Detroit, Michigan

IN THIS PAPER we propose to furnish a working hypothesis to explain the reason for certain peritoneal, pleural and pericardial effusions. These are found in Meigs' syndrome of ovarian fibroma, some cases of severe hypothyroidism and intestinal lipodystrophy (Whipple's disease). In addition we will discuss briefly the peritoneal involvement, sometimes seen in adrenal cortex deficiency of Addison's disease. We feel that the hypothesis will furnish means to the solution of the serosal layer involvement when present in these diseases. Biochemistry will probably furnish the answer, especially in view of the intense work being done on the pituitary and adrenal cortex hormones.

The hypothesis is based on the embryology of the adrenal cortex and the serosal peritoneum, pleura and pericardial origin. This, of course, includes the serous layer of the intestine.

"The adrenal cortex arises from the splanchnic mesoderm at the base of the dorsal mesentery near the cephalic pole of the mesonephros.

"The somatic and splanchic layers of the mesoderm form on their coelomic surfaces a single layer of squamous cells, termed the mesothelium. This is the covering layer of the pericardium, pleural, peritoneum, mesenteries, serous layer of the intestine, and lining of the vaginal sac in the scrotum" (Prentiss and Arey[14]).

The mesothelium also gives rise to the epithelium of most of the urogenital organs, to the striated muscles, both skeletal and cardiac.

There has been adequate evidence that the adrenal cortex influences the development and function of the striated muscles and gonads. However, the influence of the adrenal cortex on the serosal layers, the peritoneum, pleura and pericardium, has not been stressed so far as we know. It is this relationship of the adrenal cortex to the serosal layers that we wish to discuss.

From The Department of Internal Medicine, Harper Hospital, Detroit, Michigan.

A disease characterized by serosal layer involvement with ascites and pleural effusion is Meigs' syndrome. This syndrome is usually associated with an ovarian fibroma.

Furthermore, congenital malformations of the kidney are sometimes seen in this disease. It has long been known that congenital malformations of the kidneys are intimately related to congenital malformations of the adrenals. In addition these two conditions are frequently associated with malformations of the ovary or testicle.

It has been shown that malformations of the pituitary as seen in anencephalic fetuses are associated with malformations of the adrenal cortex. The literature on these associated malformations of the pituitary and adrenal cortex was reviewed several years ago.[12]

Meigs and Cass[9] said that no adequate explanation has been given to account for the phenomenon. Meigs said that Selye's alarm reaction was perhaps the most satisfactory explanation for the presence of fluid but it is not perfect. Even with small tumors of the ovary these transudates were present, so that pressure and cardiac impairment were no factors.

It is surprising how rapidly the transudate disappears after removal of the ovarian tumor. The diuresis is marked, and there apparently is a rapid change in the electrolyte metabolism. That the nervous system is involved in the postoperative reaction seems likely. One might postulate a sympathetic system stimulus to the hypothalamus, thence to the pituitary, and the latter in turn activating the mesodermal adrenal cortex.

In view of the known influence of the adrenal cortex on electrolyte and water metabolism, it seems quite likely that this gland is involved in Meigs' syndrome. There are excellent reviews of the literature by Hartman and Brownell[4] as well as by Gaunt, Birnie and Eversole.[3]

The latter author's review contains 283 references. We are quoting certain parts of their review as seem pertinent to the present discussion.

"The role of the adrenal cortex in electrolyte and water metabolism was the first of the important adrenal cortical functions clearly recognized when studies of cortical physiology began to take precise form in the early 1930's. Emphasis has been placed, however, upon the actions of cortical hormones on electrolyte metabolism, to which their actions on body water were generally considered as a secondary osmotic consequence. In particular, the fact that the cortical hormones cause sodium

retention, and hence water retention, led to the idea that their major action on water metholism was one of water conservation.

"Within recent years, on the other hand, it has become clear that a definite function of cortical hormones is to stimulate water diuresis. In a water-loaded animal this action can be a dramatic life-saving one. Under proper circumstances the water-eliminating effect of cortical hormones is of comparable magnitude to that of the water-conserving action of their physiological counterpart, the posterior pituitary antidiuretic hormone.

"The dilemma which presents itself is, therefore, that the cortical hormones may cause either water retention or water loss. This is not an unusual situation because many substances exert different effects depending upon the setting of the physiological stage on which they operate. Evidence now at hand is sufficient to permit an intelligible if not necessarily complete interpretation of these different aspects of adrenal cortical function."

The proven effect of the adrenal cortex on water and electrolyte metabolism makes the involvement of this gland seem likely, when in addition it has also been shown to have an influence on the function of the gonads and striated muscles including the specialized cardiac muscle.

Since these tissues are mesothelial derivatives it seems logical to assume that the other mesothelial tissues would also be involved and of course, this is true clinically as shown by the ascites and pleural effusion. At times the mesothelial pericardium is also involved with effusion.

Briefly summarized here are the tissues involved in this syndrome:

1. Adrenal cortex.
2. Renal cells.
3. Gonads (ovarian fibroma).
4. Peritoneum.
5. Pleura.
6. Pericardium.

In order to have such a hypothesis accepted it must be shown that the adrenal cortex is involved, and this must be done by chemical studies or by proven pathological changes in this gland. Certainly chemical studies such as excretion of 17-keto-steroids, 11-oxysteroids, sodium, potassium, eosinophil counts, and other studies should be carried out in this syndrome. In view of the recent results achieved with adrenocorticotrophic hormone and cortisone, studies of these products will also lead to an understanding of this syndrome.

Severe hypothyrodism may be associated with serous layer involvement. Means[8] called attention to the involvement of the serous cavities in untreated cases of myxedema. These cavities invariably contained fluid.

Horrell and Johnson[7] reported two cases of myxedema with pericardial effusion and concluded that this is a rare complication of myxedema heart disease. Responsible factors are unknown, but myocardial failure is felt to be a minor one. The pericardial fluid in both cases was studied for protein and cholesterol content and was less than those of the blood.

Case Report

Mrs. E. H., a fifty-seven-year-old white woman, was admitted to Harper Hospital, December 16, 1949, complaining of swelling of abdomen, gain in weight, loss of appetite, shortness of breath, ankle edema, generalized fatigue, all of which had begun six months prior to this admission.

Past History.—The patient had a thyroidectomy in 1929 for exophthalmic goiter with typical toxic symptoms; and because of a recurrence of these symptoms, this same operation was repeated in two stages in 1939. The pathological diagnosis was "primary exophthalmic goiter with areas of fibrosis with round cells simulating Riedel's struma."

The pathological report of the two specimens removed at the second operation was "primary exophthalmic goiter."

Family History.—One daughter died of tuberculous empyema, one son had pulmonary tuberculosis, and the patient's husband had one eye removed because of a tuberculous retinitis.

Catamenia.—The menstrual periods were always normal until ten years ago when they ceased.

Physical Examination.—The patient was a small emaciated appearing white female with bilateral exophthalmos. The skin was dry and scaling. The hair was thin but of moderate consistency. The fundi showed evidence of moderate arteriosclerotic changes. There was a thyroidectomy scar, but no palpable thyroid tissue. Both leaves of the diaphragm were elevated, and there were râles at the right base and evidence of an effusion at the left base. The heart was enlarged to the left on percussion. There was a systolic murmur in the aortic area. Blood pressure was 140 systolic, 90 diastolic. Pulse was 70. Rhythm was regular. The abdomen was enlarged and protuberant. A definite fluid wave was present. Pelvic and rectal examinations were essentially negative. There was some pitting edema of the ankles. Admission diagnosis was benign or malignant cyst of ovary with Meigs' syndrome complicated by arteriosclerosis and hypothyroidism.

Laboratory Work.—Blood count: erythrocytes 3,720,000, leukycytes 6,100, color index 0.89, hemoglobin 10.3

gm. (Wintrobe), 66 per cent. Differential count was normal. Nonprotein nitrogen was 25.3 mg., fasting blood sugar .084 per cent, total proteins 6.52 gm., albumin 3.37 gm., globulin 3.15 gm., ratio 1.07:1. Cephalin flocculation was at twenty-four hours, 2-plus; at forty-eight hours, 3-plus. The urine was negative except for a trace of albumin and a few white blood cells. X-ray of the chest showed elevation of both leaves of the diaphragm, evidence of a left-sided pleural effusion and an enlarged heart. A flat plate of the abdomen was read as showing evidence of arteriosclerosis and ascites. Two electrocardiograms were read as showing "serious myocardial damage."

The patient was given two transfusions and vitamins. An exploratory laparotomy was performed on December 19, 1949. There was approximately 10 liters of straw-colored ascitic fluid in the abdomen. The uterus was normal in size but retroverted. There were several small firm miliary-like lesions on the serosal surface of the uterus and tubes and one large white area (1.5 cm. diameter) on the under surface of the liver. The rest of the abdominal organs were normal. Microscopically the lesions proved to be calcified plaques of fibrous tissue and fibrosis of tube plications. The patient made an uneventful recovery and was discharged on December 31, 1949.

She was readmitted on February 2, 1950, because of reaccumulation of ascitic fluid and decreasing visual acuity.

Physical examination on this admission showed essentially the same findings as found on December 16, 1949, except that patient seemed more lethargic, her skin was drier and scaling. The hair was coarse. There was a left-sided pleural effusion. Her heart was large, and heart tones distant. The ascites was massive and the patient at this time had a 4-plus pitting ankle edema. The impression was that the patient had a severe degree of hypothyroidism complicated by ascites, pleural and pericardial effusion and arteriosclerosis.

Laboratory Work.—Blood count: erythrocytes 4,210,000, leukocytes 5,800, differential count normal, hemoglobin 11 gm., 72 per cent. Color index was 0.85. Urine showed 1-plus albumin, 20 to 25 white blood cells, 15 to 20 hyaline casts. Nonprotein nitrogen was 29.0 mg., blood calcium 8.77 mg. per cent, albumin 3.45 gm., globulin 2.25 gm., A:G ratio 1.5:1.

Basal metabolism was reported as being unable to compute because oxygen consumption was too low for the T scale used. Blood cholesterol was 273.9 mg. A repeat nonprotein nitrogen was 27.7 mg. Serum potassium was 16.06 mg., serum sodium 364.70 mg.

Patient was put on bed rest and a low salt diet. She was started on .03 gm. (½ gr.) of thyroid substance which was gradually increased to .12 gm. (2 gr.) per day. Mercuhydrin was given and also vitamins. Two abdominal paracenteses were performed. The first one was on February 3, 1950, at which time 11,000 c.c. of straw-colored fluid was removed, and six days later 4,000 c.c. was removed. Her vision was better, her skin and hair began to become less dry, and for the first time in many years she began to perspire. A basal metabolism the twenty-fifth day after admission was minus 14 per cent.

During her stay in the hospital the heart size decreased, the pleural effusion cleared up and most of the ascitic fluid was gone. The patient weight 133 pounds on admission and 98 pounds when discharged March 3, 1950. She has since continued her remarkable improvement to date (August 23, 1950) and now has been free of ascites and all evidence of pleural effusion for five months.

It is, of course, problematical whether the adrenal cortex played a part in the production of the ascites and hydrothorax. That it was not due to myocardial insufficiency is shown by the fact that thyroid produced a marked improvement in her general condition as well as a disappearance of the serous fluid. It would have been helpful in determining whether the 17-ketosteroids and the 11-oxysteroids were decreased. Also an eosinophil count followed by an injection of adrenocorticotrophic hormone would have added to the diagnosis.

That the adrenal cortex is involved in severe hypothyroidism is shown by pathological studies. Furthermore, it has been proven that the pituitary is involved in hyperthyroidism (Moehlig[11]). In congenital hypothyroidism it has been adequately demonstrated that the pituitary is underfunctioning as shown by the pathological findings. These are briefly (1) chromophobic enlargement of the gland—the inactive state, and (2) aplasia and degeneration.

The clinical evidence supports the pathological findings of pituitary underactivity. Naturally if this is true, then the small adrenal cortex that is present in congenital hypothyroidism is understood as being secondary to the changes in the pituitary. Wegelin[16] has reported on the adrenal cortex pathology as seen in congenital hypothyroidism.

Lending support to the opinion that the adrenal cortex is involved in hypothyroidism is the work of Hill and associates.[6] These workers found that patients with untreated myxedema show a delayed and often inadequate adrenal cortical response to ACTH, as measured by the four-hour and forty-eight-hour change in eosinophil level, and the forty-eight-hour change in 17-ketosteroid excretion.

The administration of desiccated thyroid restores the capacity of the adrenal to respond readily to ACTH. From this it would appear that an op-

timal level of thyroid is necessary for normal adrenal cortical function.

Whipple's intestinal dystrophy is characterized by gastrointestinal distress with fatty diarrhea and failure of intestinal absorption leading to death. Hendrix and associates[5] reported four new cases. They said that the disease is characterized clinically by sprue-like manifestations usually accompanied with chronic arthritis and hypotension but with macrocytic anemia.

Many of the patients, they said, display chronic polyserositis and "marantic endocardiosis." There is suggestive evidence in some cases of functional impairment of the adrenal cortex.

The involvement of the adrenal cortex with chronic polyserositis again suggests that this portion of the adrenal is concerned with the serous layers of the body, and the changes seen in the adrenal cortex may well account for the production of serositis.

If the adrenal cortex is involved in Whipple's disease, then the involvement of the mesothelial serous layers could be understood as due to changes in the electrolyte and water metabolism. Perhaps the involvement of the synovial membrane with the resultant arthritis is also due to adrenal cortex involvement.

If further speculation were permitted, then the inadequate fat absorption and the increased glucose tolerance with low glucose values might be the result of a primary inadequate pituitary function and a secondary adrenal cortex hypofunction. The involvement of the pituitary is based on the selective action of this gland on mesodermal tissues. This includes the synovial membranes, fat cells, and adrenal cortex.

Hendrix and associates[5] said it may well be more than coincidence that most of the patients with Whipple's disease, about whom pertinent information is given, showed signs suggestive of adrenal cortex insufficiency, such as increased pigmentation of the skin and hypotension. These features of Whipple's disease have been pointed out by several writers, and the patient studied by Glynn and Rosenheim "improved temporarily" after the administration of cortical extract. The possible relationship of the adrenal cortex to intestinal absorption has been the subject of speculation in both Whipple's disease and sprue, and "moderate steatorrhea" has been reported in some patients with Addison's disease. It seems probable that there is a certain degree of functional injury of the adrenal cortex in Whipple's disease, probably as a part of the general disease state. However, one can conceive of such hypothetic cortical insufficiency as representing the final "stage of exhaustion" of the "adaptation syndrome" of Selye.

Recently Plummer and associates[13] reported on the clinical and pathologic study of thirty-four cases of "lipophagic intestinal granulomatosis" (Whipple's disease).[5]

They stated that "lipophagic granulomatosis reveals many characteristics resembling pituitary and adrenocortical hypofunction (hypotension, pigmentation, asthenia, male predelection, abdominal pain)."

They further stated that "lipophagic granulomatosis shows numerous resemblances to the 'collagen diseases' and adrenocortical hypofunction, as evidenced by the foregoing data."

There is perivasculitis, panserositis, endocarditis, lymph node involvement, and chronic polyarthritis as well as a lipoid (fat) disturbance.

As far as can be seen from this, we have a mesodermal tissue involvement, and the evidence for the mesodermal adrenal cortex involvement is strengthened by the fact that the mesothelial serosal layers are involved since the latter are influenced by the state of the adrenal cortex.

The pituitary and mesodermal tissue involvement was stressed many years ago, first in 1914, and stressed ever since by one of us. (Moehlig[10]).

Escudero and associates[2] reported a patient with Whipple's disease who had several colloid cysts in the anterior pituitary and atrophy of the alpha cells in the islets of Langerhans.

Certain it is that we seem to have a common denominator (adrenal cortex hypofunction) in Meig's syndrome, severe hypothyroidism, and intestinal lipodystrophy, which could readily explain the involvement of the serosal layers of the body. The adrenal cortex has a selective action on these mesothelial tissues and as has been amply demonstrated, the other mesothelial tissues such as the gonads and the striated muscles, including the specialized heart muscle are involved in adrenal cortex disease.

Adding to the evidence that the adrenal cortex affects the serosal layers are the peritoneal symptoms present in Addison's disease. Abdominal pain of a generalized nature plus gastrointestinal

symptoms may be due to peritoneal involvement. Rigidity and tenderness of the abdomen may resemble peritonitis (Ebstein[1]). This may lead to the diagnosis of appendicitis, cholecystitis or other acute abdominal conditions, and operation may be undertaken.

Acute adrenal insufficiency may take on the acute abdominal form which is characterized in part by severe epigastric pain, lumbar tenderness, vomiting and profound shock. Thorn[15] stated that abdominal pain has been observed from time to time in approximately one-third of the patients with Addison's disease.

Addison's disease may be accompanied by ascites, hydrothorax and pericardial effusion, again showing the mesothelial serosal layer involvement. This can be present without tuberculous involvement of the adrenal glands.

Today, thanks to the valuable contributions of physiological chemists, we are less dependent upon the pathologists for diagnoses in certain diseases. The pathologist is as yet unable to state whether an individual has diabetes mellitus from his autopsy sections, or whether a goiter is toxic or not.

It is an indication that the more we know of cellular physiology the better do we understand the chemical changes in the cells which may not show pathological changes by our present methods of microscopic examination.

It is therefore not unlikely that our advancing knowledge of adrenal cortex physiology and endocrine physiology in general will permit us to say that the adrenal cortex is involved in the aforementioned diseases. Of course, there must still be a brake on unwarranted speculation, but we have more right to postulate certain hypotheses than some years previously when our knowledge of endocrine physiology was scanty.

As applied to Whipple's intestinal dystrophy it is suggested that the pituitary function may be involved since this gland influences the development and function of the mesoderm, which includes the adrenal cortex, and the latter in turn has the same relationship to the mesothelium.

In Addison's disease the involvement of the adrenal cortex would, according to this hypothesis, explain the peritonitis-like symptoms seen in this disease as well as the occasional nontuberculous ascites, hydrothorax and pericardial effusion.

Actual proof of this hypothesis as applied to the aforementioned diseases awaits confirmation, but we hope that it may prove helpful in solving their etiology.

Summary

A working hypothesis was suggested to explain the reason for certain peritoneal, pleural and pericardial effusions found in Meig's syndrome of ovarian fibroma, some cases of severe hypothyroidism and intestinal lipodystrophy (Whipple's disease).

This hypothesis is based on the embryology of the adrenal cortex and the serosal peritoneum, pleura and pericardial origin.

The adrenal cortex influences the development and function of the mesothelium and as applied in the present situation, means the mesothelial serous layers, the peritoneum, pleura and pericardium.

It has been reported elsewhere that the adrenal cortex in addition influences the development and function of other mesothelial structures, namely the epithelium of most of the urogenital organs, the striated muscles, both skeletal and cardiac.

A case of severe hypothyroidism was reported in which the patient had a tremendous ascites and hydrothorax. This condition cleared up completely with the administration of adequate dosage of thyroid substance, and she has remained free of ascites and hydrothorax for a period of five months.

Below is a diagram using the hypothesis as described in the text:

Ectodermal adrenal medulla
and
Sympathetic nervous system
↓
Ectodermal hypothalamus
↓
Ectodermal pituitary
↓
Mesodermal tissues
including the
Adrenal cortex
↓
Mesothelium
↓

1. Lining of urogenital organs—gonads.
2. Pericardium
3. Pleura
4. Peritoneum
5. Serous layer of intestine
6. Striated muscle
   (a) Skeletal
   (b) Cardiac.

(Continued on Page 196)

Marshall B. Lloyd Hospital Dedicatory Address

By L. Fernald Foster, Ph.B., M.D.
Secretary, Michigan State Medical Society
Bay City, Michigan

"The furthering of the medical arts, the practice of medicine, the care of the sick, child welfare, the establishment and operation of hospitals, laboratories, dispensaries, and medical diagnostic institutions, or any of other of said purposes which may properly come within charitable uses. I especially recommend the establishment of an institution in Menominee, Michigan, for medical diagnosis and temporary care of the sick . . ." So reads the will of Menominee's great leader, Marshall Burns Lloyd.

IN REALIZATION of the words and thought of Mr. Lloyd as portrayed in his will, we are gathered today to dedicate the physical embodiment of his vision—the Marshall B. Lloyd Hospital.

Mr. Lloyd wished to further the science of medicine—and in this great new institution this science will be fostered.

Mr. Lloyd, realizing the difference between medical science and the application of that science, wished to further the practice of medicine—and in this institution the art of medicine becomes a reality.

Mr. Lloyd wished to care for the sick—what greater opportunity could he have provided than the Marshall B. Lloyd Hospital?

Mr. Lloyd was interested in child welfare—this institution typifies the emphasis on preventive medicine and basic good health, inherent in the principles of child welfare.

In death, as in life, Marshall B. Lloyd demonstrated the vision that earned him the recognition, "Menominee's Foremost Citizen." Each step of progress is but the "lengthened shadow of a man." Within the limits of the shadow of Mr. Lloyd lie life-lengthening opportunities for the citizens of Menominee.

The intriguing biographical record of Mr. Lloyd is written in the pages of the history of Menominee. It is not unique, however—it is the story of America, typifying the American way of life under a system of private enterprise. It is the story of a poor boy who became the wealthy benefactor of the community that nurtured him. As a boy, young Marshall was in succession a shingle mill employe, a grocery clerk, a shoe clerk, a factory hand, a hotel waiter, a peddler, a farmer and an insurance salesman. But the spark of genius was always present. That spark flamed in the field of invention. We see the creation of a new-type eavetrough, a clothes hamper, a combination scale and bag-holder, a wire-weaving machine, and the manufacturing process of welding flat steel into tubing —all great contributions in the march of industrial progress.

Undismayed by destruction of his first manufacturing concern by fire, he persevered and succeeded in the C. O. White Manufacturing Co., the Lloyd Manufacturing Co., the Haywood-Wakefield Co. and the Lloyd Store and Lloyd Theater.

He became a wealthy man and through his benefactions followed the same pattern. We see this exemplified in his will which provided not only for development of new medical scientific treatment but also for its distribution.

Let us for a moment consider the environment in which this man grew. No better phrase than private enterprise can typify that environment.

We see in the sunshine of the American private enterprise system the fostering of personal initiative as opposed to paternalism—flexibility and dynamic growth as opposed to the rigidity of regimented, governmental compulsions. We see the expansion of opportunity by the sagacious use of profits as opposed to the stiffling influence and loss of profits occasioned by over-weaning taxation. We see unimpeded progress through fostering of an inventive spirit under a capitalistic economy. We see wholesome competition creating a man-to-man relationship resulting in the desire to share his successes with his fellow-man.

Mr. Lloyd was the implement through which the American way of life made its blessings become a reality in this community—one of those blessings becoming reality is the hospital we are dedicating here today.

To those of us who have had the pleasure of inspecting this new hospital and of viewing its present and proposed facilities, it presents itself as the acme of architectural and structural perfection. The scientist recognizes in this hospital unusual provisions for scientific accomplishment. He sees a truly modern and specially equipped department of physical medicine. He is impressed by such facilities as the Hubbard Tank with its overhead

Delivered at the dedication of the Marshall B. Lloyd Hospital, Menominee, Michigan, August 10, 1950.

crane for total bath immersion, the whirlpool baths, the electric cabinets, massage equipment, needle sprays, creative workshop for occupational therapy, electrotherapy and exercise room, and other modern devices to affect a rehabilitation of those who have fallen victim to crippling disorders.

For those patients needing surgery the scientist sees a battery of operating rooms handsomely equipped to meet the demands of the surgical specialties.

Equally important are a host of technical devices incorporated in the basic construction of the hospital to aid in the care and comfort of the patient. There is in each room an oxygen supply, radio, telephone and lavatory. A doctor's audible paging system, a nurses' call system and doctors' registry provide a co-ordinated communication setup.

Incorporated in the well-thought-out plans are all the other features of a truly modern hospital—conference rooms, meeting rooms, diet kitchens, nurses' stations and the like.

I cannot help but be impressed by the dissimilarity of such a hospital and a modern hotel, with which hospitals are so frequently compared. Such comparison only proves to me why hospital bed costs exceed those of a hotel and justifiably so.

I need not further elaborate upon the physical properties of the Lloyd Hospital—they are here for all to see.

However, the significance of a hospital from the standpoint of modern medicine is less obvious to the average eye. Here again the Lloyd philosophy of progress through research and exploration finds its voice.

It is in institutions like this that medicine has found the answers to disease which have increased our life expectancy twenty years in the 20th Century. Such an institution lends itself to unfettered research by personal initiative in contradistinction to stifling influences of government medicine. We must not forget that insulin, penicillin, aureomycin and streptomycin were not discovered by an act of Congress, nor did any legislative pen ever dictate the techniques of the modern surgeon.

Upon this occasion we should give especial thought to the significance of two questions, viz.:

1. What does the Lloyd Hospital mean to your community?

2. What does the Lloyd Hospital mean to you personally?

Your community has gained far more than a building, for this hospital brings to your doorstep the medical facilities seldom found outside the great teaching centers. It brings to your family doctor an opportunity to improve his ability to serve you. It brings to you a health information center for the dissemination of sound health advice.

To you personally, it provides a place to postpone death, to recover from illness, to protect your health—in short, to enable you to increase your total enjoyment of life by minimizing time spent in infirmity and disability.

What greater gift can man give to man?

The Lloyd hospital is a beautiful structure—but it becomes a glaring failure to the memory of its donor unless it implements to the greatest extent and with maximum efficiency the service for which it ws created. A great responsibility rests upon the Lloyd Clinic Fund directors for its administration, upon the Sisters of St. Francis for its operation, upon the professional staff for its skill and upon the community for its support.

We should today pay tribute to the directors of the Lloyd Clinic Fund, who have so wisely administered the funds allotted to them, and whose continued wise counsel will ever be essential to the preservation and extension of the progress made to date.

The delegation of the operation of this institution to the Sisters of St. Francis was in my opinion most wise. It means the application of sound principles of hospital operation by a group uniquely qualified by experience and training. Perhaps even more important is the fact that the Sisters of St. Francis are cognizant of the needs and problems of Menominee. Under their direction the ancillary services to medical science attain their rightful place of importance—as essentials to the success of medical science.

The doctors of medicine of Menominee have been given a precious treasure and with it a grave responsibility, which only a conscientious and considerate application of their art can discharge. I call upon the doctors of medicine of Menominee to be ever midful of the fact that their greatest responsibility is to their patients, and through the facilities of this hospital they can better discharge their responsibility. Menominee is fortunate in having an excellent quality and supply of medical, nursing and other professional personnel. Great medical institutions are not simply brick and

mortar but become great because of a personal, day-to-day co-ordination of minds and hearts to effect greater health and well being.

Up to this point the content of my remarks has been preliminary to the one thought I should like to leave with you today. The conception and birth of a child is a physical function, but once the child is born the responsibility for the spiritual and physical growth of the child becomes a challenge which cannot be ignored. That concept is recognized in the law of every civilized nation.

Years ago, Mr. Lloyd, one of your noblest citizens, conceived an idea which today has come into being. As citizens of Menominee, you can't dismiss the challenge of supporting and guiding this community offspring. And it will ever need your support.

Nothing is free. Benefits to Menominee will be contingent upon the material and spiritual support given this hospital. Your hospital will open its doors wide to all.

To those unfortunates whom the vicissitudes of life have dealt devastating blows, which even their sincerest efforts could not withstand, the shelter and services of the hospital and its personnel will be freely and gladly given. But those who seek the benefits of this institution and are self-supporting should of course give gladly of their substance in proportional return. But that is not enough. A sympathetic understanding by the community of the problems of administration and operation of the hospital is mandatory for harmony. And harmony is essential to efficiency and to the basic purposes and aims of the hospital.

As we look into the future, in the light of this challenge, we see that misunderstandings will arise —new diseases will come to plague us—progress is not devoid of difficulty—indeed it is only by the surmounting of difficulties that progress is made. For without the recognition of problems we degenerate into stagnation. Even the splendid physical facilities of this hospital are outmoded as of today. We must add tomorrow the new by developing appurtenances of modern medical science—the fastest growing science in the world.

We must dedicate ourselves today to the challenge of tomorrow to maintain our American social and economic principles—and within these concepts maintain this hospital as our joint and separate responsibility.

Mrs. Henrietta Lloyd Merrill, I speak for the citizens of Menominee, the board of trustees of the Lloyd Clinic Fund, the medical profession of the community and of the state, the Catholic Order of the Sisters of St. Francis and all those persons who seek the beneficent shelter of this great institution, when I express their sincere and humble appreciation for your help and inspiration both as an individual and the representative of Mr. Marshall Burns Lloyd.

My new cut ashlar takes the light
Where crimson-blank the windows flare.
By my own work before the night,
Great Overseer, I make my prayer.

If there be good in what I wrought
Thy Hand compelled it, Master, Thine—
Where I have failed to meet Thy Thought
I know, through Thee, the blame was mine.

The depths and dream of my desire,
The bitter paths wherein I stray—
Thou knowest Who has made the Fire,
Thou knowest Who hast made the Clay.

One stone the more swings into place
In that dread Temple of Thy worth.
It is enough that, through Thy Grace,
I saw naught common on Thy Earth.

Take not that vision from my ken—
Oh whatsoe'er may spoil or speed.
Help me to need no aid from men
That I may help such men as need.

MSMS

CEREBRAL BIRTH INJURY

(Continued from Page 152)

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Progress Report on Maternal Mortality Study

A STUDY of maternal deaths that have occurred in Michigan during 1950 is being made and is nearly completed. This research has been sponsored by the Michigan State Medical Society and the Michigan Department of Health.

The Committee on Maternal Health of the State Society has prepared a questionnaire consisting of fifteen pages which is being used by the six obstetric consultants for recording in detail each maternal death.

A committee, consisting of Dr. Norman F. Miller, professor of obstetrics and gynecology, University of Michigan, Dr. Charles S. Stephenson, professor of obstetrics and gynecology, Wayne University College of Medicine, and Dr. George Kamperman, is reviewing these reports.

The Committee on Maternal Health of the Michigan State Medical Society is responsible for the publication of this work in THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY. Until the reviewing committee has completed its work, one or two case reports will be published each month.

All maternal mortality reports are anonymous, and the reviewing committee and all others concerned with this study positively guarantee that no physician who reports a maternal death will be subjected to any embarrassment.

Maternal Death

Case 1.—Patient white, aged twenty-nine, primigravida. L.M.P. February 25, 1950. First seen during the second month of pregnancy. Four prenatal visits made. Previous medical history negative.

Admitted to hospital first time May 5, 1950, with abdominal cramps and brownish vaginal discharge. Treated as a threatened abortion. No pelvic examination. Discharged May 7.

Re-admitted May 8 with ruptured ectopic pregnancy.

Patient was well until May 4, 1950, when she complained of lower abdominal cramps most marked on left side and developed a scant brownish vaginal discharge. She was hospitalized with a tentative diagnosis of threatened abortion and observed. Hemogram and urinalysis were normal. No vaginal or rectal examination was done. Symptoms subsided and patient was discharged home May 7, 1950.

Eighteen hours later patient felt well and was out of bed when she was seized with a sudden severe abdominal pain which persisted. She was readmitted to the hospital with a tender, rigid abdomen. Blood pressure 60/0 and a thready, rapid pulse, red blood cells 3,570,000, white blood cells 17,100. Blood type 11A, Rh positive. She was given ¼ gr. morphine sulfate, 1000 c.c. 5 per cent glucose in water and prepared for immediate surgery 1000 c.c. blood and 1000 c.c. 5 per cent glucose in water was administered in the operating room, where under N_2O_2 plus O_2 and ether anesthesia the abdomen was opened and found to be filled with blood from a rupture in the middle third of the left Fallopian tube from which a ten-week fetus was removed. A left salpingectomy was done, the abdomen sponged free of blood and closed. Patient's postoperative condition was reported as satisfactory. Blood pressure 108/50, pulse 124. 250 c.c. plasma followed by 500 c.c. blood and 1000 c.c. 5 per cent glucose was given intravenously immediately after surgery. The patient reacted from anesthesia and appeared to be in reasonably good condition until 2:00 a.m., May 9, four hours after surgery, when a sudden drop in blood pressure to 70/0 was noted along with dullness in the flanks. The possibility of intra-abdominal bleeding was suggested and treatment consisting of almost a constant infusion of blood and fluids instituted. Blood pressure stabilized between 110/70 and 72/40. No further laboratory studies were made. The following morning at the attending physician's request the patient was seen by a surgical consultant who made no definite diagnosis and advised expectant treatment as long as the patient's condition permitted. At 4:00 p.m. of the same day the patient's abdomen had become tense, tender and distended and her blood pressure again became indiscernible. She was returned to the operating room, where under local infiltration 1 per cent novocaine anesthesia the abdomen was reopened and found to be filled with blood coming from the left ovarian pedicle. The ovary was removed, bleeding controlled and the abdomen reclosed. 2000 c.c. of blood was given during surgery, making a total of 6000 c.c. blood and 6000 c.c. fluids administered in twenty-four hours of hospitalization.

Following surgery the patient began having considerable dyspnea and became cyanotic. She was seen by medical consultant who reported massive pulmonary edema and cardiovascular collapse. Course was rapidly downhill and patient expired at 7:25 a.m., two hours after operation.

Surgical consultant advised expectant treatment when question of operation for intra-abdominal hemorrhage arose. Medical consultant was called in terminal phase who suggested that the cardiovascular collapse was due to over-administration of fluids.

Autopsy Findings.—

1. Ruptured left ectopic pregnancy with massive intra-abdominal hemorrhage.
2. Acute passive congestion of lungs.
3. Left ventricular failure.

Summary and classification by reviewing committee:

Maternal death.....Yes

Preventable death.....Yes

Ruptured tubal pregnancy with hemorrhage and secondary hemorrhage.

Faulty medical judgment and faulty technique.

From the Michigan State Medical Society Committee on Maternal Health, Sub-Committee on Maternal Mortality Study.

Detroit Surgical Association

Meeting of October 19, 1950

The Management of Gastrointestinal Foreign Bodies

Thomas Grekin, M.D., and
Merle Musselman, M.D.
Wayne County General Hospital, Eloise, Michigan

Records were reviewed of fifty-one patients admitted to the Wayne County General Hospital during an eleven-year period with a history of ingestion of a foreign body. These foreign objects varied greatly in size, shape and texture. Surprisingly, 82 per cent of the sharp objects passed spontaneously while only 63 per cent of the blunt ones did so. The points of delay or arrest in progression were first the esophagus and then the ileocecal region, with no perforations in this series. Esophagoscopy and removal is indicated only with severe pain, marked dysphagia, hemorrhage or mediastinitis. Celiotomy is indicated only by symptoms of obstruction, hemorrhage or perforation or for arrested passage of the object after four weeks of observation. A conservative plan of management without catharsis lavage or special diet is recommended. Frequent x-rays, examination of each stool, and recognition of complications complete this plan. Operation for removal of ingested foreign bodies is reserved for the special indications mentioned.

The Intestinal Villus in Man and Laboratory Animals

Lyle F. Jacobson and Rudolf J. Noer
Wayne University College of Medicine

The morphology and blood supply of the small intestinal villi have been restudied as a basis for further investigation of the effects of distention upon the intestinal wall. Rabbit, dog, opossum, have all been studied as well as human specimens obtained at operation. India ink and two-color latex injections have been accomplished and some specimens have been cleared for vasculature demonstration.

The villi of the dog and opossum are both cylindrical, with a tendency toward clubbing of the distal end in the opossum. The rabbit villi are roughly triangular in shape and those of man are somewhat leaf-like in the upper reaches of the gut, more cylindrical towards the ileum.

The blood supply of the villus, derived from the submucosal arterial plexus, is provided to arterial branches passing up the periphery and draining by a central vein which receives the blood by arterial venous anastomoses or capillary connections near the tip.

Meeting of November 20, 1950

The Diagnosis of Traumatic Intracranial Hemorrhage by Angiography

J. E. Webster, M.D., R. Dawson, M.D., and
E. S. Gurdjian, M.D.
Grace and Receiving Hospitals, Detroit, Michigan

The differential diagnosis of intracranial lesions in the seriously injured patient is sometimes difficult. Exploratory trephine openings and diagnostic air studies may be harmful and inconclusive. Recognition of those lesions demanding surgery is essential. Angiography may be the means of accurate delineation of the lesion present whether amenable to operative treatment or not. At Receiving and Grace Hospitals from January to June, 1950, about 350 patients with head injury were admitted. One hundred sixty had major cranial injuries. Angiography was accomplished in thirty patients who did not improve or who gave evidence of a "dynamic syndrome" of increasing stupor, new focal signs, progressive cerebral dysfunction as shown by cardiac, thermal or respiratory changes. There were nine subdural

hematomas, two epidural hematomas, four temporal lobe intracerebral collections, one extravasation lesion, two aneurysms, and ten with no evidence of a surgical lesion. There was one false negative angiogram in a patient with bilateral subdural hydroma proven by trephine, and one false positive in a patient with severe damage to the temporal lobe. The patterns of angiographic change in the various lesions were illustrated. Accuracy of the angiogram was confirmed by trephine in many patients with a normal vascular pattern and by postmortem in those that did not survive. The disadvantages of angiography in this situation are the possible reaction to the contrast medium, movement of the patient.

Diagnostic Accuracy in Upper Gastrointestinal Lesions

Edwin Sykes, M.D., and H. M. Smathers, M.D.

Veterans Hospital, Dearborn, Michigan

Two hundred and forty-seven gastrointestinal lesions operated upon at the Veterans Hospital, Dearborn, Michigan, were analyzed for accuracy of diagnosis by the clinician, radiologist, gastroscopist, and surgeon. The lesions included one hundred nineteen duodenal ulcers, sixty-four gastric ulcers, twenty-six gastric carcinomas and thirty-eight miscellaneous conditions. As might have been predicted, the duodenal ulcer group presented little difficulty to the clinician, radiologist, and surgeon, whereas the gastroscopist had almost nothing to offer in arriving at this diagnosis. In the gastric ulcer group, however, only the surgeon was more than 50 per cent accurate in diagnosis and in 15 per cent of the cases he did not correctly interpret the pathology. Clinician, radiologist, and gastroscopist were all within two points of 75 per cent accuracy in the diagnosis of gastric carcinomas. The surgeon made an incorrect diagnosis in 11 per cent of these cases.

Discrepancies in some instances may have been due to the time lag between the various examinations. It was also apparent that the x-ray and gastroscopic examinations complemented one another. Most important was the revelation that the surgeon misinterpreted more than 11 per cent of the gastric lesions. Since the pathological nature of gastric lesions is so difficult to determine without biopsy, the clinician who would "observe" such a lesion for any extended period is bearing a tremendous responsibility.

Meeting of December 5, 1950

The Use of Segments of Small Intestine as Ureters

D. W. McLean, M.D., and O. G. Fais, M.D.

Wayne University College of Medicine

The successful clinical utilization of an isolated segment of small bowel to replace a portion of one ureter was reported by Nissen in 1940. There has been neither clinical nor experimental evidence advanced to support the feasibility of this procedure.

This is a report of our observations on the effects in the dog of substituting a 20 cm. segment of small intestine for one or both ureters.

In six dogs a segment of bowel replaced one ureter. These animals showed an initial rise of about 100 per cent in the nonprotein nitrogen (NPN). There was a subsequent fall to normal level in half of the animals within six weeks. The other half showed a persistent increase in the NPN of about 25 per cent after several months. One dog was biopsied at three months and sacrificed after one year. The kidney on the operated side showed contraction and infection. The kidney on the unoperated side showed some increase in size but no other significant change. The bowel used as ureter showed no change. The ureterointestinal anastomosis showed some stenosis but an adequate lumen.

In three of these dogs the opposite kidney was removed. One dog died in four and a half days, and a second died ninety-five days following nephrectomy. This second dog appeared clinically well until four days before death. In both cases there was complete obstruction at the site of ureteral anastomosis. The third dog showed a moderate increase in NPN, but after eleven weeks the NPN, plasma chloride and CO_2 levels were all normal.

In two dogs a 20 cm. segment of small intestine

was substituted for both ureters in one operation. Both dogs showed a precipitate rise in NPN and a return to normal in six weeks. About eight months after operation one of these dogs became pregnant and delivered eight pups at term, all developing normally. Both of these dogs showed a normal blood chemistry and appeared clinically well at the end of one year.

In five dogs with intestinal segments replacing one or both ureters, the plasma chloride level was 10 mg. per cent lower and the CO_2 4.6 vol. per cent lower than in two normal dogs used as controls.

Cultures of the bladder urine showed infection in all cases where the small intestine was anastomosed to the bladder.

Conclusions.—

1. In the dog a segment of small bowel may be used to replace one or both ureters without obviously affecting the clinical or physiological status of the animal for periods up to one year.
2. All of the dogs with intestinal ureters showed persistent infection of the urinary tract. This infection leads to a variable degree of pyelonephritis.
3. Stricture at the ureteral anastomosis is the most serious complication.
4. If stenosis and infection can be prevented the utilization of segments of small intestine for the transport of urine should prove a feasible procedure in clinical surgery.

Renal Papillary Necrosis

ARNE KNUTSEN, M.D., ELMER R. JENNINGS, M.D., and A. R. AXELROD, M.D.
Receiving Hospital, Detroit, Michigan

The subject of renal papillary necrosis was briefly reviewed and the conclusions given from a histological and pathological study of sixteen cases seen in the past three years at Receiving Hospital. The condition is seen chiefly in diabetics and in those with obstructive uropathy, usually prostatic hyperplasia. Gross and microscopic findings of the kidneys examined did not support the hypothesis of a "reversed Trueta shunt" in the pathogenesis. Thrombosis was found only once and is unimportant in etiology. Arteriosclerosis and arteriolosclerosis were almost constantly present and bacteria were invariably found in the tissues. The association then is between a kidney impaired as to function by vascular disease and a supervening renal infection. The resulting papillary infarction and limitation of damage to papillae and adjacent pyramids is still unexplained from this study.

An Evaluation of Sliding Bone Grafts of the Tibia

HERBERT E. PEDERSEN, M.D., and A. JACKSON DAY, M.D.
Veterans Hospital, Dearborn, Michigan

The use of the Albee inlay graft for the treatment of various fracture problems of the tibia was discussed. Its use at the Veterans Hospital since 1946 in twenty cases was critically examined. The end result could be determined in sixteen patients, two patients could not be found, and in two there was a too short postoperative period for study. This type of graft was used for non-union thirteen times, four times for delayed union, once for mal-union, and two times for recent unstable fractures. Fourteen of the sixteen had solid bony union. Complications included two fractures of the graft, two significant infections which only retarded healing, and one refracture of the graft. One graft fracture and the one graft refracture contributed to the two failures reported. It was stated that the failures occurred in unusual problems where the choice of operation was subject to question. The authors believe that the sliding inlay graft fixed with metal screws is a sound operative procedure for treatment of unstable fractures, delayed union, and all but unusual cases of non-union of the tibia.

SOCIALISM

Socialism and death have one thing in common; you cannot be either a little bit socialized or a little bit dead. It is whole hog or nothing. After two years of the National Health Program, London doctors still have preference as to where they want to practice. By compulsion of one kind or another, somebody is going to have to shoo doctors away from the fancy neighborhood into the tenement districts, or the program will wind up where it started. When the government is given authority to tell one group or one profession where and how its members are to work, no other group or profession can be safe for long.—WILLIAM L. HUTCHESON, General President, United Brotherhood of Carpenters, Joiners, Vice President, A. F. of L., Cleveland, December 6, 1950.

Seals

The medical profession places its seal of approval on many projects which have as their objectives improvement in the health of people. There are Easter (Crippled Children) Seals, Christmas (Tuberculosis) Seals, the Poliomyelitis March of Dimes, and many others. Every American has the God-given right and obligation to help his neighbor who cannot sustain himself. This duty is multiplied many fold when the individual's health is concerned. In this one way we, as men and women of medicine, can spark the welfare of the individual far beyond any precedent. We can do all this providing we have the proper respect for the greatest of all seals, "The Seal of the United States."

That seal expresses a belief in God, freedom of the individual, the right to work for and to hold property and a government to insure the individual's rights. This seal expresses the purpose of America. Why then do we permit our government to tax and spend beyond a solvency limit? Why then do we permit our government to dip into everyone's business? Why do we tolerate ever bigger and more powerful bureaucracies? Wherever limitations on government are relaxed we are on our way to statism. Our forefathers created a government in which each branch acted as a check or form of limitation on other departments.

Every year the millions who become of age and assume their places in the structure of society have the right to work and be compensated for their endeavors. It is only by being productive and holding property that those who follow will be provided for. The incentive to accumulate makes it possible for us to plan the various seal programs. Have any other peoples of the world as many of the good things of life as we enjoy? Are they able to plan seal programs or do anything comparable for those who need assistance? Why should we apologize because freedom and incentive have worked so well for us?

President's Message



We must put first things first. We must preserve the Seal of the United States which stands for freedom, a belief in God, incentive and the right to hold property. We must not allow the government to assume unintended powers during times of stress and become a tyrant rather than a servant. We must counteract the 2 per cent or subversives, such as Communists and Socialists, who are working constantly for statism. We could create a desire for our way of life if we would bring representatives here from every country associated with or behind the Iron Curtain and let them observe what freedom means. Perhaps our forefathers were not the only ones who would rebel against tyranny and fight for freedom.

From the Preamble of the Constitution of the State of Michigan we read, "We, the People of the State of Michigan, grateful to Almighty God for the blessings of freedom, and earnestly desiring to secure these blessings undiminished to ourselves and our posterity do ordain and establish this Constitution." Let us then preserve this as well as our National Constitution and be assured our seal programs will continue to be a part of a better, fuller life for those who are our unfortunate neighbors.

As an example, "The Easter Seal" as sponsored by the Michigan Society for Crippled Children and Adults, Inc., represents a voluntary organization which carries on a life-saving program of service to the underprivileged. Among its many benefactors is the Michigan Rheumatic Fever Control Program. We commend the Michigan Society for Crippled Children and Adults and the Easter Seal to all Michigan doctors of medicine, their wives, families and patients. This is truly a chance to aid an afflicted unfortunate neighbor.

C E Umphrey M D

President, Michigan State Medical Society

Editorial

CO-OPERATION—GOOD PUBLIC RELATIONS

FOR MANY years the Council of the Michigan State Medical Society has believed most of the problems of health and welfare of our people could best be solved by combined efforts of members of the medical profession and interested laymen through direct action rather than through the activities of government agencies. These latter always have a tendency to become dominant and bureaucratic.

This issue of THE JOURNAL is testimony to what such association may accomplish. Friendship and co-operation was established in the far past between the Michigan Society for Crippled Children and Adults, Inc., and the Council of the Michigan State Medical Society, which led to many common meetings, discussions, and the establishment and adoption of well-defined objectives. The care of crippled children, especially case-finding, and early diagnosis was a worth-while project. Especially commendatory was the creation and financial sponsorship of Michigan's pioneering Rheumatic Fever Control Program, with the Michigan Society for Crippled Children and Adults and the Michigan State Medical Society leading the way.

More recently the Society together with the Wayne County Medical Society became interested with the problem of the epileptic. A very worthwhile study has been in being for several years. Now the members of the Detroit group are offering their information and services to the epileptics of the whole state. This branch of specialized medicine is sadly needed. Much can be done for the victims. The profession through its association with the Michigan Society for Crippled Children and Adults stands ready to make its joint abilities and services available to many who otherwise would surely become neglected persons.

Some ten years ago the Michigan State Medical Society co-operated with the Michigan Society for Crippled Children and Adults, which furnished a goodly sum of money in establishing a most remarkable project of case-finding and guidance in the study of rheumatic fever of children. The incidence and crippling results of this disease were appreciated by the profession, who believed it could prevent much of this suffering and economic loss by voluntary diagnostic centers, to which doctors of medicine could send their questionable patients for study by well-known internists, pediatrists, otolaryngologists, and others with special skill in detecting rheumatic fever. Fourteen centers were set up in various parts of the state, and later sixteen in Wayne County. The work was financed by an original grant of $22,000 from the Crippled Children Society. The grant was repeated for several years. The burden lately became rather heavy and the newly established Michigan Heart Association also made a formidable grant which is carrying much of the expense of the present thirty-four diagnostic centers for rheumatism of childhood.

Spastic paralysis is another disease needing much work. Victims are everywhere, and until recently nothing could be done if the parents of the patient were not in position to assume a staggering financial burden. Most of these cases were considered hopeless, but now through efforts of the same Michigan Society for Crippled Children and Adults diagnostic groups have been operating in Michigan for several years. Training, corrective procedures and rehabilitation have worked miracles in these cases.

A PURE LIBEL AGAINST MEDICINE!

WE had always considered *Harper's Magazine* an interesting and highly respected publication, but we have just read Bernard DeVoto's "The Easy Chair—Letter to a Family Doctor," and we are compelled to revise our estimates.

We had considered DeVoto an accurate commentator and in the past have commended his remarks, but he has now stooped to a misrepresenting tirade against the medical profession, against Dr. Elmer L. Henderson, president of the American Medical Association, and against every one of us whom he includes in his blast if we were hoodwinked and browbeaten into paying the American Medical Association's special assessment of $25.00. He mentioned the advertising which the American Medical Association published in

October. He says, "I was following the ads which you were running in the Boston newspapers. I found them dishonest, and they further annoyed me by the copywriter's assumption that I am a fool."

Commenting on a statement purported to come from Dr. Henderson, DeVoto says, "He is to have no more colds, and his friend's daughter need not have died from poliomyelitis last summer. Cure guaranteed, Dr. Henderson's ad said in effect." Another paragraph reads, "Much might be said about this delirious rant, which would have landed Dr. Henderson before the un-American Activities Committee if it had been circulated by a group of excited college boys who had just heard of Marx. One thing is this: you and Dr. Henderson are saying what is not so. Another is this: Dr. Henderson acquires no immunity by wrapping the flag round the vested interest of the AMA's bureaucracy and trustees. Your acquiescence in his claptrap withdraws you from my respect but I take it to be a consequence of the fact that you have not done much thinking about the subject he is misrepresenting. . . . It is a fair bet that, like thousands of other physicians whose rage Dr. Henderson is whipping up, you have not even read the bills for compulsory payroll deductions for medical insurance which, after all, are what he is talking about."

It is our opinion that most of our doctors have read these bills and that Mr. DeVoto has not, for the tone of his article shows that he does not know. He implies that medical propaganda against socialized medicine is "a Jewish plot" and has "invoked anti-Semitism."

Further he says, "Many medical societies have threatened disciplinary action—up to measures which would make practice impossible—against any of their members who participate in any other kind of plan." (Referring to medically sponsored prepayment plans.) "Some have been convicted of conspiracy in restraint of trade—which is a crime, Doctor—and others are under indictment for such interference with voluntary prepayment plans. . . . The AMA has fought hard against comprehensive prepayment plans. It has tried to kill those that have succeeded. On the showing so far, is it honest about voluntary insurance or is it throwing dust in my eyes and yours?"

Mr. DeVoto must know that these statements are absolutely false. Federal Judge Claude McCollouch of Oregon answered these charges in the finding which he published when he even refused to hear defense arguments and decided the government had no case whatever against the Oregon State Medical Society et al. If that is conviction, we cannot understand English. We have also received a letter and pamphlets from Dr. Frank Dickenson, head of the Medical Economic Research Department of the American Medical Association, saying that he had tried to run down the charge that the American Medical Association had opposed prepayment medical plans. He had searched every record and there was not one item of support for that charge.

DeVoto charges the AMA "with its unvarying misrepresentation of the efforts other countries are making to solve the problem." In Michigan we will accept the word and personal letters of observation of our own members who have gone to Europe and studied this problem. Our own members can be trusted—Dr. Henry A. Luce, Dr. Grover C. Penberthy and many others. There has been no misrepresentation.

DeVoto says further, "The traditional system of medical practice has burst its seams; it is now inadequate and outworn. We are going to have something different. . . . This is a public matter, a community and national matter. It requires innumerable skills which medical men simply have not got, and it must be under the unremitting scrutiny of representatives of the public with power to act. Medical knowledge is only one of many kinds of knowledge that are required for social action."

What does DeVoto mean by "social action?"

DeVoto accuses the American Medical Association of an ambition to reach 60 per cent of the people with prepayment insurance, leaving the other 40 per cent to shift for themselves. He quotes Dr. James Howard Means, professor of clinical medicine at "a great medical school" (Harvard): "A learned profession has sunk, or been dragged, in its political sphere, to a distressingly low level. What organized medicine needs . . . is a new and more enlightened leadership."

We submit that organized medicine leadership has produced a healthy nation and in spite of its inadequacy has reduced the maternal death rate and the total death rate to an all-time low in America. DeVoto's letter and its tremendous circulation in *Harper's Magazine* is a libel on Dr. Elmer L. Henderson and upon each one of us. We hope for court action in this matter.

WE MUST RE-EVALUATE

FOR THE period of remembered time the ambition of the family provider has been to so map his economic course that he might enjoy his later years in comparatively less activity, and at the same time be assured that his dependents would receive proper care; that they would have a sufficient start on their own life; or would have a competence against want in case of the bread-winner's death or disability. Some of our more successful people attained that hoped-for stage; others only partially succeeded; but many were dependent on daily earnings when they reached the point where they could no longer work. Some became in turn dependent on their children. A generation ago such was an expected stage in man's existence. Now the parent abhors that end and the average younger person rebels against the thought that he should be compelled to support his elders.

The Federal Congress in 1935, being mindful of shortages of work and hardships of less fortunate persons, passed the Social Security Act, providing for retirement of the worker for "old age" at age sixty-five, and gave him a pittance of security benefits averaging for the individual $26.00 per month, and for the man and wife $41.00, with a penalty of no benefits whatever if he continued work and earned $15.00 a month or more. Fifteen years have passed under this system, and the time for re-evaluation is here. The law has been re-written, maximum benefits of $45.00 for the individual and $78.00 for the family are made available, and the work allowance is upped to $50.00 per month. (Incidentally, with our devalued money values this is not much of an actual increase, if any.)

Following the precedent established by federal law, many industries have set up a retirement age of sixty-five years at which employes are compelled to retire. Unfortunately for this brand of social planning modern medicinal research, sanitation, and better living conditions have raised the prospective average age expectancy. At the beginning of the century one person in twenty-five was over sixty-five, and now it is one person in thirteen. The prospects are that another fifty years will make that ratio one person in eight, if no further advance is made by medical and sanitary sciences, by housing and nutritional advantages.

The group of compulsorily retired persons has now reached about eleven and a half million, with prospects of twenty million by 1975. What is to be their future? We know three well-trained, active doctors of medicine who held salaried positions in nationally recognized medical centers, who faced the retirement date with apprehension. One has taken an administrative position which he says has saved his life, another grasped with thankfulness a literary assignment, and the third has voluntarily returned to a different kind of work to relieve the monotony.

We know of innumerable active administrators, retired in their prime, who have entered into some other business to use up their inborn energy and ability. Many have made successes, some have merely eked out a competence, but all have staved off boredom and intellectual stagnation. We hesitate to conjecture what must be the future outlook of so many of our men over sixty-five who are still in the vigor of life and usefulness, and who according to insurance tables have twelve to fifteen years of potential usefulness.

The present social security act has many good features that were and are needed, but we believe it should be entirely rewritten making it a real security insurance. When the individual has reduced earning power, make that help available to him as a right not to be denied because he is still ambitious and willing to continue work. It is estimated that our industrial retired individuals, with willingness and ability still in them, are depriving our economy of eleven billion dollars of potential earnings. That sum would go a long way to solve some of our administrative, defense or security problems.

We ask for a re-evaluation and re-examination of our security program.

Make the Social Security program an actual insurance with benefits payable when the worker can no longer work profitably, or when he reaches a retirement age consistent with the general average. When he retires on account of age or for any just reason, his benefits should be automatic, and under no circumstances, other than fraud, be curtailed even if he does continue to work, little or to the extent of his ability. He will have paid for his protection, theoretically, and should not be disfranchised.

Michigan Society for Crippled Children and Adults

Report for the Fiscal Year, October 1, 1949, to September 30, 1950

Percy C. Angove, Executive Director,
Detroit, Michigan

IT IS with pleasure that I present herewith a brief summary report on the work of the Michigan Society for Crippled Children and Adults. You, of course, are well aware that the Michigan Society is a two-fold entity, first, it is generally known as a statewide federation of local member units; second, it is a distinct corporate body, having definite responsibilities involving a rather broad program on the state level. This report will concern itself with the second of these two concepts, although as you will observe, it is difficult to separate the two, because in perfecting and carrying forward a statewide program, of necessity, state and local must work together. We do not begin to, and cannot here present a composite report of all of the work which is done within the broader structure, known as the Easter Seal movement, with its federation of national, state and local units.

Much detail that has obtained in previous reports will be eliminated in this report. It is sufficient to state that the same conditions prevail, only to a greater degree of effort and accomplishments.

Organization

The Michigan Society is governed by a board of directors consisting of not more than seventy members elected annually. The board as a whole meets once a year at the time of the annual convention—possibly a small board could meet more often, at least twice a year. However, directors serve faithfully throughout the year in their respective areas, and close contact is maintained with and from headquarters office.

Much of the business of the Society is, for purposes of convenience and expediency, delegated to the executive committee, which meets quarterly and more often if necessary. I am happy to report that more than a quorum has always maintained. The executive committee comprises the officers and four directors elected annually by the board of directors. At the moment a committee is revising the Society's constitution or code of regulations, giving special consideration to the number of directors for practical purposes, elections and tenure, and bringing purposes and policies up to date.

Assembly

At each annual meeting the assembly of voting delegates meet to hear reports, elect directors, and to consider any other business brought to its attention. The voting delegates are the directors, voluntary contributing members and not more than two duly certified members from each local affiliated unit.

Headquarters

The Executive offices are located at 449 West Ferry Avenue, Detroit. The building, formerly a residence, is owned by the Michigan Society. It comprises a conference room and seven offices with two rooms available for expansion. The full basement houses the Easter Seal workroom and print shop, and is also used for storing supplies. Our headquarters has proven to be ideal from the standpoint of location, convenience and efficiency.

Staff

At the present time the staff comprises sixteen full-time employes and one part-time employe—executive director, field secretary, occupational therapy and crafts supervisor, seven occupational therapists, crafts merchandiser, a part-time field secretary, janitor and printer, and four clerical workers. The greatest need now is for two, preferably three, area secretaries.

In the performance of the Society's work, the staff has traveled 76,382 miles, executive director 10,409; field secretary 5,927; occupational therapists 60,046. No travel is resorted to unless absolutely necessary to proper execution of the program.

Presented at the annual convention marking twenty-nine years of service, Hotel Olds, Lansing, Michigan, October 20 and 21, 1950.

Field Service and Promotion

Field work, affording personalized service at the grass roots level is, of course, the main function of the parent organization, as is evidenced by the amount of travel on the part of the staff; a considerable portion of the supervisory staff time is spent at headquarters—too much in fact, but it cannot be avoided. There is much correspondence and other means of communication involved. Then there is the matter of reports and accounting. We are extremely sorry that the requests from our local units and friends cannot always be complied with. It is sometimes difficult to render the service in the field that we would like to; for instance, there are oftentimes conflicting dates, conferences, and meetings, et cetera. We attempt to render service where it is most needed. I am happy to report that our units and friends throughout the state appreciate our personal attention to program, organization, finances and local relating problems; in fact, we usually work with them locally at their own request. Needless to say, considerable night work is involved because we must work with local friends at their convenience.

The staff has participated at several local units' annual meetings and at conferences and meetings of co-operating agencies.

The usual excellent co-operation maintains with the Michigan Crippled Children Commission, the State Division of Special Education, and State Vocational Rehabilitation.



Two Pals at Summer Day Camp

A successful annual meeting was conducted in Detroit.

The Society's official bi-monthly publication, "News and Notes" has been prepared at headquarters office and distributed to a mailing list of over 6,000.

Both our Loan Library and that of our National Society have been made good use of.

The executive director and certain staff members have given many public addresses before varied organizations.

Pamphlets and other literature relating to special subjects and services have been purchased by the Society and distributed free. At the present time we are furnishing free to local units interested in cerebral palsy, a brochure produced by our National Society, on equipment and appliances with working drawings and complete instructions for making or purchasing. Also very complete bibliographies developed by our National Society on all phases of the work have been distributed.

National Society films have been secured and shown eleven times before varied organizations—

hospitals and even the University of Michigan Speech Department.

The Society co-operated financially and otherwise in making possible the Cerebral Palsy Parent Children Nursery School at the Horace H. Rackham School of Special Education in Ypsilanti, the Nursery School Teacher-Training program at Wayne University and the Workshop at the College of Education in Kalamazoo. At all three of these, members of the professional staffs of both the National and State Societies participated as lecturers and consultants.

Two new county affiliated units have been organized this year, one in Lake and one in Ingham counties. Another one is nearly completed for Midland county. The encouraging feature here is that while we have rendered service in these counties and done some indirect promotion, the requests to become affiliated came direct from interested friends. There are now counties unorganized but it merely means that in these counties, the Seal sale is conducted direct from headquarters' office. We do have contacts in these counties through which we work.

We have again promoted federal and state legislation with some degree of success and are still actively concerned with certain state and federal bills and appropriations, especially relating to special education and vocational rehabilitation.

Of course, much more activity coming under the heading "promotion" could be listed. There are always numerous opportunities for advancing the work that come in line with the performance of regular duties.

Coming under the classification "promotion" in its broader sense, is the opportunity for service occasioned by the executive director having served again on the State Special Education Advisory Committee by appointment of the Superintendent of Public Instruction, on the State Rheumatic Fever Control Committee by appointment of the Council of the State Medical Society and on the Board of the Michigan Epileptic Clinic, also participating on the annual nation-wide Staff Conference and Workshop for Crippled Children executives sponsored by the National Society.

Cerebral Palsy Services

A total of nine cerebral palsy two-day clinics were organized and conducted in the following cities: Kalamazoo, Battle Creek, Lansing, Jackson, Ypsilanti, Flint, Bay City, Traverse City and Marquette. Each clinic serves children from surrounding counties. A total of 259 children were examined, of which ninety-two were rechecks for evaluation. Dr. Meyer A. Perlstein of Chicago



Walking—At Last

is the Society's examining physician and consultant.

Complete medical histories are required on each child, together with psychometrics and other tests to determine the nature and extent of speech and hearing difficulties.

Up until two years ago, the Society's staff was wholly responsible for the securing of medical histories, tests, making local arrangements for the clinic, providing transportation and setting up the clinic schedule; now, in all of this, able assistance is afforded by the nursing staff of our Michigan Crippled Children Commission. We are truly grateful for this one of many evidences of the Commission's co-operation, and it is worth noting that many of the children following the clinic are served by the Commission in terms of medical treatment and the acquiring of braces. It also should be mentioned that for each clinic, the Michigan Crippled Children Commission furnishes a medical stenographer.

Never is a clinic conducted without the approval of the county medical society, and children are only accepted when referred by a practicing physician. Following the clinic, a complete medical history, together with the consultant's diagnosis and recommendations, are referred to the physician for treatment. Doctor-family relationships are strictly maintained.

It should be stated that the public health nurses of the state give freely of their time in the matter of securing medical histories and follow-up.

The clinics are only open to representatives of the Society's local affiliated units and professional workers, such as, doctors, nurses, special teachers, psychologists, physical therapists, and occupational therapists. In consequence, the clinics are educational in value, especially since the consultant details the condition of each child with causes, effects and possible treatment. Never is a child examined before parents of other children.

This service is free and the cost of the clinics is provided jointly by the Michigan Society and its affiliated units.

Three successful day camps for cerebral palsy children were conducted in Detroit, Flint and Grand Rapids.

There are five Cerebral Palsy Parent Groups sponsored either wholly or jointly by the Society's local units. For these groups, the Michigan Society has provided program participants and material.

A successful nursery school for cerebral palsy children sponsored jointly with our Genesee County local unit and others was organized in Flint two years ago as a definite part of the school system. The Genesee County chapter furnishes the transportation and part of the salary of the physical therapist. It is encouraging to note, that five of the children enrolled two years ago, have now graduated to regular grades.

Occupational Therapy Service

The Society now maintains a staff of eight occupational therapists and there has recently been added a person in charge of merchandising. Heretofore much of the occupational therapists' time was consumed in merchandising, which involves, collecting finished products, pricing them, arranging for sales outlets, and conducting the sales. In consequence, actual occupational therapy service to homebound lagged considerably.

The occupational therapists serve a comparatively large number of physically handicapped persons who pose serious problems, and who previously were neglected. This year 567 homebound clients were served. They represent, of course, the serious type of crippling conditions, such as cerebral palsy, muscular distrophy, multiple sclerosis, arthritis, and other severe orthopedic conditions. The average case-load per occupational therapist is seventy—far too many, especially when so much travel is involved. Forty is considered a good case-load where practically no travel is involved.

With eighty-three counties, eight occupational therapists cannot nearly supply the needs and demands. Each therapist's territory embraces an average of eleven counties, therefore, the large number of referrals must be screened and the time of the therapist devoted to those most in need and who can best be helped.

A very excellent plan of co-operation now prevails with our Michigan State Rehabilitation Service, whereby the Society is reimbursed on a fee basis, this past year to the extent of $1,523.94. This plan prevails now in the Wayne Out-County area, Genesee and Oakland counties. An enlarged plan is now being devised whereby the same service will apply throughout the entire state.

The therapists work their areas from the most convenient center; as of now they are: Marquette, Traverse City, Flint, Saginaw, Lansing, Wayne Out-County, Grand Rapids, and out of Detroit headquarter's office.

There is one permanent sales outlet conducted by the Genesee County Chapter in Flint and periodic sales have been conducted throughout the year.

Initial supplies and equipment are furnished by the State Society, local units, and other co-operating agencies; when the homebound worker becomes proficient, he furnishes his own.

Where the products are sold, $.90 on the $1.00 is returned to the homebound client. They do not earn a lot, but even a little means much to them when it is considered that they earned very little or nothing before. This year $2,534 was earned by the homebound clients, and here it must be stated that the products of a large number of those served were not yet suitable for merchandising.

Because of its very nature and need, this service

is greatly appreciated by professional workers, our local units and the general public.

Rheumatic Fever Service

It was through the efforts of the Michigan Society in co-operation with the Michigan State Medical Society that a nationally recognized Rheumatic Fever Control and Diagnostic Center Program was established in Michigan. Up until this past year, this program was entirely financed by the Michigan Society, but now the Michigan Heart Association has very largely assumed the financial responsibility. However, the Michigan Society still maintains its interest and support by contributing whatever it can afford financially and by being active in the co-administration of the program.

There are now thirty rheumatic fever control centers established, and during the past year 1,032 new cases were examined and 232 rechecks.

Epileptic Project

The Epileptic Clinic, originally sponsored jointly by the Society and the Detroit Chapter, is making a very splendid contribution in the control of convulsive disorders, and it is now making definite plans to project its program throughout the state, thus exemplifying its official name—the Michigan Epileptic Clinic. It has become so recognized that the state has a considerable part in financing the service of the professional staff with tax monies. It also receives support from the United Health and Welfare Fund of Michigan. We are happy to report that the Michigan Society by being represented by three directors and the executive director on its board, has a definite part in the development of this splendid program.

Camping

The Society has promoted summer recreational activities through its local affiliated units and afforded financial assistance to Bay Cliff Health Camp which this past summer had an enrollment of 173 children from fifteen counties.

The Summer Day Camps of Cerebral Palsied Children have already been reported on under "Cerebral Palsy Services."

Scholarships

Special teacher-training agencies and local school district officials appreciate the fact that the scholarship policy of the Michigan Society has helped materially to alleviate the shortage of professionally trained persons. In fact, they know that without it, many physically handicapped children would not be receiving the benefits of a public school education adapted to their particular needs. During the past year twenty-eight special teachers have been trained or are now under training through the financial aid of the Michigan Society. The twenty-eight students, at a cost of $3,982.50, have been trained to serve under the following specialized classifications: orthopedic, six; speech correction, five; deaf and hard of hearing, thirteen; blind and partial seeing, three; occupational therapy, one.

A shortage still prevails. The Society provides grants, not loans. Candidates are selected on the basis of previous training and general fitness. Grants are made on the basis of recruitment and not on the applicant's need of financial assistance. It directly helps the trainee, but only as a means to an end, namely, serving untold numbers of handicapped children.

Fund Raising—Easter Seal Sale

All things considered, the 1950 Easter Seal sale was successful. The total gross receipts were $10,424.14 less than 1949. This was occasioned by the fact that the Seal sale did not prevail in the Detroit City Schools. If it had, and the returns from this source equaled that of 1949, the 1950 Easter Seal sale would have exceeded the 1949 gross by $3,000.00.

A detailed report on a local and state-wide basis is available and is being distributed at this meeting, as well as to all directors of the Society and the Easter Seal sale committees throughout the state. Therefore, it is unnecessary to duplicate it in this report.

Every evidence points to the fact that the Easter Seal sale possibilities have by no means been exhausted. The answer to a successful Easter Seal sale is complete coverage, affording everyone the opportunity to contribute.

The state society furnishes all committees with Easter Seal supplies, including stationery and all printing for local units, free of charge. The Seal sale is big business as evidenced by the list of supplies received, prepared, distributed and furnished free.

A total of 1,103,000 letters of appeal were printed, together with the same number of both the outside and enclosure envelopes at Society

headquarters. This represents a tremendous task where it is realized that sixty-eight different sets of printing jobs were involved. The letters were also folded at state headquarters for local use ready for enclosing.

The material ranging from billboard posters to school packets totaled 3,425,044, and in addition, 112,240,000 Easter Seals. Approximately 10,000 pieces of organization and publicity material was distributed by state headquarter's office.

Local Services

The executive director's report of last year contained a detailed description with costs of the varied services rendered by the Society's affiliated units. Through our field service trips we have evidence that the very same splendid conditions prevail. Last year's report of local services was based on a definite study and a similar study will be initiated as soon as possible after the close of this convention.

Clearing House

Naturally all of the work briefly described in this report calls for considerable planning and judgment and necessitates much stenographic, accounting and general clerical work.

Indeed, headquarters is a veritable clearing house. There is considerable correspondence; in fact, during the past year, an average of twenty-seven letters a day was received requiring the attention of the executive director and the department heads.

Our clinical and case-work requires the services of one full-time stenographer, the Seal sale department another, and the field service and occupational therapy work another. The executive director's secretary is also bookkeeper and office-manager.

Conclusion

It has been an extremely busy year; in some respects a strenuous one, mainly due to confusions occasioned by new promotional and organizational developments in the field of services to the physically handicapped.

This report would be remiss if it did not include an expression of appreciation to the board of directors of the Society, and especially to the executive committee, which has faithfully met its obligations and assisted materially in the furtherance of the program. Especially do we wish to thank our president and treasurer for their frequent personal attention and guidance in matters of importance.

The staff has attempted to render the best possible services, and if its efforts have been successful, it is largely due to the splendid help and co-operation received from everyone concerned, especially our local friends throughout the state.

ADRENAL CORTEX

(Continued from Page 178)

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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

SECOND COMMISSIONER'S CONFERENCE CALLED

Michigan's fifty-five local health officers will gather in Lansing April 4, 5 and 6 for their second annual Commissioner's Conference to consider how the public health programs of the state are being and should be conducted.

The health officers come to Lansing at the invitation of State Health Commissioner Albert E. Heustis, who feels that the people who take the public health program directly to the people are the ones who best know the health needs and wants of the people.

Already the health officers of the state are dividing themselves into five committees dealing with different fields of public health to prepare the agenda for discussion.

In the Conference to be held in the offices of the Michigan Department of Health, health directors will meet in executive session. While members of the State Health Department staff will be available for consultation, they will attend and participate in discussion only upon request.

The Commissioner's Conference is expected to result in recommendations to Commissioner Heustis for the improvement of the public health activities of the state. The Conference is patterned after the State and Territorial Health Officers Conference which the federal law requires the Surgeon General to call.

The First Commissioner's Conference held in February, 1950, resulted in about fifty recommendations for the improvement of the state public health program, a large share of which have already been put in practice.

* * *

To meet the curtailment of federal appropriations for public health activities, the Michigan Department of Health has found it necessary to reduce its services to the physicians and people of the state.

Late in October, the United States Public Health Service announced retroactive reductions in the already approved federal budgets which had gone into effect the first of July 1950. Efforts to get the cuts restored were futile.

These reductions have made it necessary for the Michigan Department of Health to decrease its services as follows:

1. Three of the Department's five federally financed tuberculosis case finding mobile x-ray units were taken out of service and stored. The six employes involved were dismissed.

2. The notification of the registration of birth which the Department has mailed routinely to parents and local health offiers and which is important in making the necessary corrections in state vital records was discontinued. The five employes involved were dismissed. (Last year this mailing served as medium for distribution of material on immunization of children.)

3. Field consultation in health education provided local health departments, schools, and community groups was abolished. The multilithing of health education material and the necessary record forms for conducting the Department's business has been reduced. Two positions involved were abolished.

4. Public health nursing consultation, provided local health departments and counties without local health departments, in the control of communicable disease and in improving the health of mothers and children has been reduced. Two positions were abolished.

5. Health protection for Michigan's industrial workers has been reduced. Three positions were abolished. This comes at a time when Michigan's industrial health protection needs are great and follows a year in which Michigan industry spent over $2,000,000 of its own money to voluntarily comply with the recommendations of the Michigan Department of Health in protecting the health of industrial employes.

6. Routine quantitative Kahn tests have been discontinued. These tests will be performed only on special request on problem diagnostic cases.

7. Complement fixation tests for syphilis have been discontinued.

8. Cultures for the gonococcus will no longer be made.

9. Cultures for M. tuberculosis have been discontinued.

10. Streptomycin sensitivity testing of M. tuberculosis will no longer be done.

The Controller of the Department of Administration of the State of Michigan has been requested to take whatever steps are necessary to restore these services by state appropriation.

* * *

Ray Faust, Chief of the Water Supply Section of the Michigan Department of Health, has resigned to accept a position as Executive Assistant Secretary of the American Water Works Association. Faust has been with the Division of Engineering since 1923 and Chief of Water Supply since 1944. He begins work in New York, February 1.

T. L. VanderVelde will succeed Faust as Chief of the Water Supply Section.

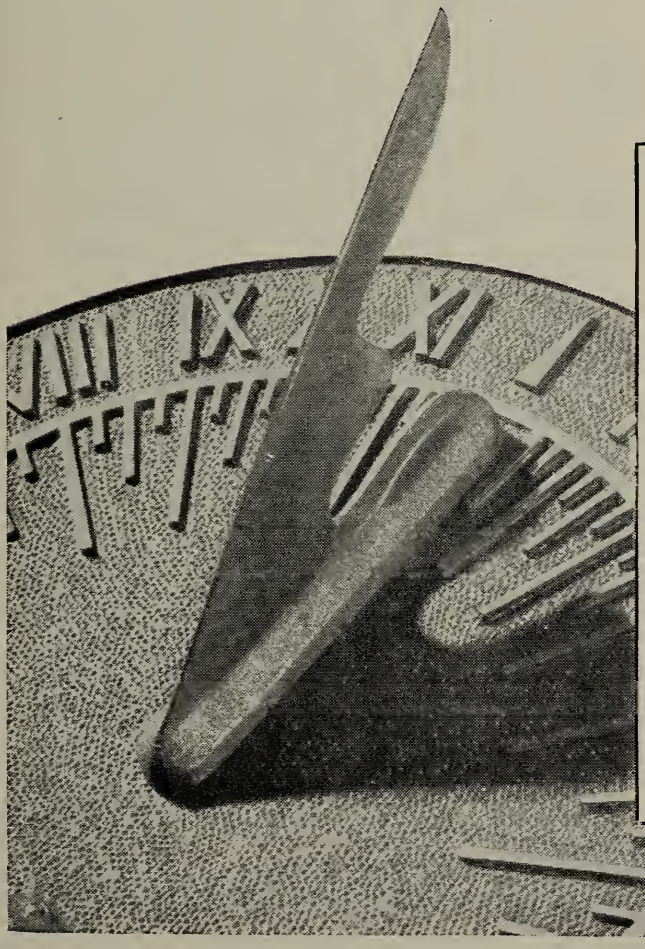
* * *

William Gebhardt, biochemist in the Division of Laboratories, Michigan Department of Health, has been granted a six weeks' leave of absence to serve as a consultant on vaccine preparation for the Pan-American Sanitary Bureau of the World Health Organization in Peru, Ecuador and Colombia. Gebhardt's temporary assignment began January 14.

(Continued on Page 200)

HABIT TIME OF BOWEL MOVEMENT





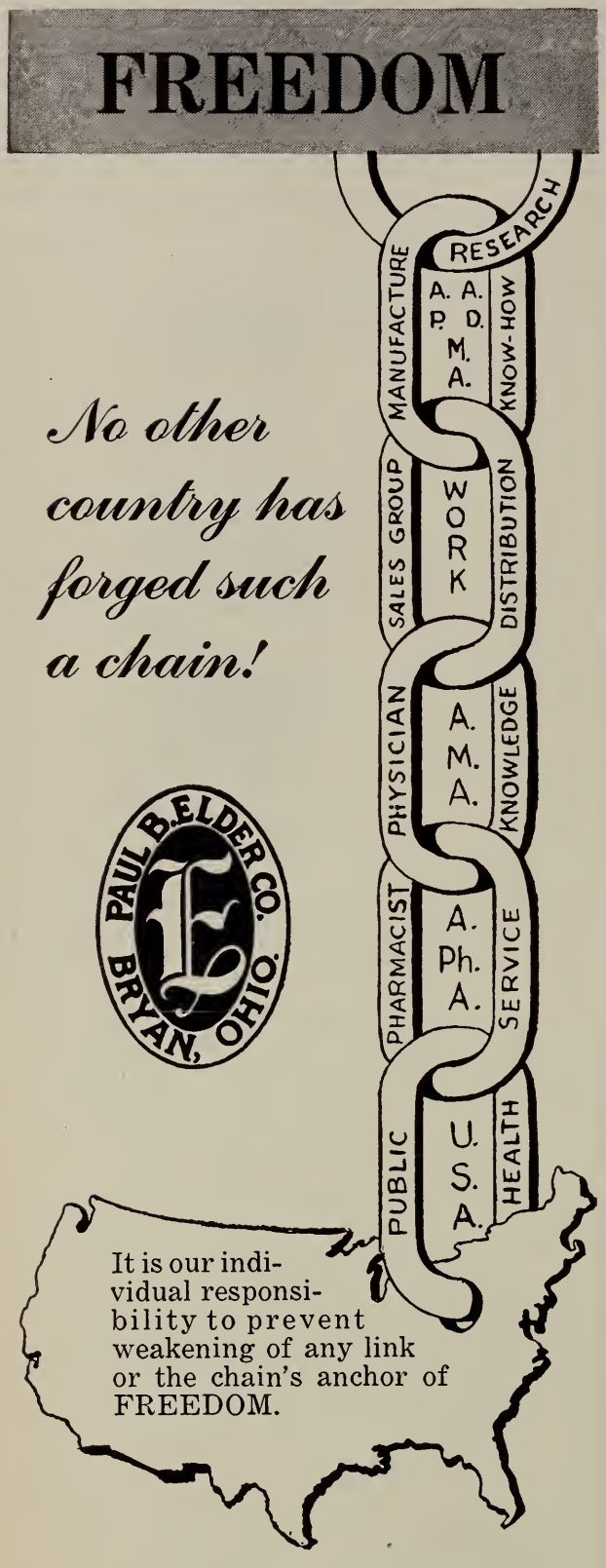
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(Continued from Page 198)

John Hepler, Director of the Division of Engineering, has been granted two months' leave of absence to serve as Consultant in Sanitary Engineering to the Commissioner of Health of Puerto Rico and lecture to the School of Tropical Medicine of the University of Puerto Rico in San Juan. He will observe the operation of the Sanitation Division of the Puerto Rico Health Department and make recommendations for its reorganization, and will also present papers at the meeting of the Puerto Rico Public Health Association meeting.

W. F. Shephard will be acting director of the Division of Engineering of the State Health Department until Mr. Hepler returns in mid-March.

* * *

A new antibiotic which may well rival the sulfas, penicillin and streptomycin in its effectiveness against disease has been discovered in the Laboratories of the Michigan Department of Health, Dr. Albert E. Heustis, State Health Commissioner, has announced.

The antibiotic is a product of a peach-colored soil mold, the 3,590th of 17,000 molds tested in the Department's four-year-old antibiotic research program.

Based on its structural form, it has been given the name synnematin (pronounced sin NEE ma tin) which means "fused thread."

Synnematin kills the organisms of several diseases in test tubes and in animals. Tests in humans have not been done.

The new antibiotic is effective against diseases caused by certain Salmonella organisms for which no present adequate treatment exists. Salmonella organisms are the cause of certain types of diarrhea, including the type which causes the deaths of numerous Michigan infants in hospital nurseries. The Salmonellas are also responsible for certain types of septicemia and for typhoid fever.

In the test tube it appears that synnematin may also be effective against tuberculosis, undulant fever and certain streptococcus organisms.

Credit for the discovery is given to four of the Department's young researchers: Dr. Russell Gottschall, bacteriologist; Dr. John M. Roberts, mycologist (mold expert); Dr. Lucile Portwood, chemist: and Jay C. Jennings, bacteriologist.

While much additional testing in animals and much purification remains to be done before production for human use can be undertaken, the Department has applied for a patient on the antibiotic in the name of the State of Michigan.

Clinical improvement following chemotherapy without complete roentgenological clearing of the suspected area in an adult indicates at least a tentative diagnosis of primary bronchiogenic malignancy until proved otherwise.

* * *

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Communications

MICHIGAN EPILEPSY CENTER
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November 14, 1950

Dr. L. Fernald Foster
Sec'y Michigan State Medical Society
2020 Olds Tower
Lansing 8, Michigan

My dear Dr. Foster:

With the approval of Dr. Roscoe Cavell, Chairman of the Wayne County Medical Advisory Committee to the Michigan Epilepsy Center, we are sending the following résumé of recommendations made at a meeting of physicians, familiar with the Center Program, on October 26, 1950:

1. That the Michigan Epilepsy Center continue its present cross-sectional studies of patients for referring physicians. But that, in addition, the Center Clinical, treatment-investigation Team accept from physicians a few cases (in whatever area of epilepsy it decides) for full treatment in all phases of the illness over a long period of time. This is in keeping with the original outline of the Epileptic Clinic, Inc., presented to the Wayne Co. Medical Society and approved February 7, 1947.

2. That we extend center services out-state: either by organization of medical consultant groups as traveling clinics to meet with local physicians for consideration of their patient problems; or utilization of portable EEG equipment to serve local physicians and their patients, primarily in creating an awareness of the incidence of hitherto unrecognized cases of epilepsy.

3. That the center medical staff approach the Wayne University and Ann Arbor Medical Schools about a joint endeavor with medical student and postgraduate educational programs to emphasize the symptom complex of epilepsy and its multiple treatment approach.

Those present were: Drs. F. Wm. Cutts, Charles G. Jennings, F. S. Perkin, J. L. Whelan, R. W. Cavell, H. W. Bird, and the undersigned.

It is our desire to proceed at once with the implementation of the above.

Sincerely,

A. J. Derbyshire, Ph.D.
President
Mrs. Clare B. Kidder
Executive Secretary

GORGAS HOSPITAL
Ancon, Canal Zone

Dr. Wilfrid Haughey, Editor
The Journal of the Michigan State Medical Society
610 Post Building
Battle Creek, Michigan

Dear Doctor Haughey:

The members of the Staff of Gorgas Hospital as well as the Medical Librarian wish to express their thanks and appreciation for your contribution of The Journal of the Michigan State Medical Society, which you so kindly sent to us during the past few years. We trust that our medical library will continue to receive copies of your state medical publication.

Sincerely,
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"THE NEW LOOK"

The first issue of *The Journal of the American Medical Association* for January 6, 1951, has a new look. The type is different. The make-up of the cover is different. The mast head and the top page line has been changed. The type in the original articles is slightly larger and we believe much clearer and easier to read. We like the new look very much.

* * *

AIR POLUTION INSTITUTE

Michigan municipal officials will learn what air pollution means to municipalities in danger to public health, harm to tourist trade, decreased valuation of property and decreased tax revenue in an Air Pollution Institute to be held at Michigan State College under the auspices of the Division of Industrial Health, Michigan Department of Health and the Continuing Education Division and School of Engineering of the College, March 7 and 8.

How to correct or mitigate the effects of air pollution through engineering will be considered in addition to model ordinances.

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R. S. Sykes, D.D.S.

Evarts A. Graham, M.D., St. Louis, will deliver the Fourth Annual Sykes Lecture, a feature of the 1951 Michigan Postgraduate Clinical Institute. The Lecture is scheduled for Thursday noon, March 15, in the English Room of the Book-Cadillac Hotel, Detroit.

The Sykes Lecture was established in 1948 through a grant from R. S. Sykes, D.D.S., of Muir, Michigan, and annually presents outstanding authorities in the cancer field. The first lecture was given by Frederick A. Coller, M.D., Professor of Surgery, University of Michigan Medical School. Harry S. N. Greene, M.D., Professor of Pathology, Yale University School of Medicine, delivered the second lecture; William Lewis Brosius, M.D., Detroit, gave the 1950 lecture.

* * *

The National Society for Crippled Children and Adults will hold its 1951 convention in Chicago, October 3-6, at the Palmer House. For copy of the program write Secretary L. J. Linck, 11 S. LaSalle Street, Chicago 3, Illinois.

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1951

Internal Medicine

Diseases of the Heart	March 19-23
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Rheumatic Disease	April 2-6
Allergy	April 9-13
Diseases of Blood	April 16-20
Diseases of Gastro-intestinal Tract	April 23-27
Recent Advances in Therapeutics	May 3-5
Electrocardiographic Diagnosis	August 27-September 1
Neurology, Clinical	May 14-17
Obstetrics and Gynecology	Febrary 19-March 3
Ophthalmology Conference	April 23-25
Pediatrics	February 28-March 3
Roentgenology, Diagnostic	April 16-20

Further information and application blanks may be obtained from Dr. H. H. Cummings, Chairman, Department of Postgraduate Medicine, University Hospital, Ann Arbor, Michigan.

The American Trudeau Society (Medical Section of the National Tuberculosis Association) is sponsoring a postgraduate course in Pulmonary Diseases at Marquette University School of Medicine, Milwaukee, Wisconsin, March 26-31, 1951. For program write Wisconsin Anti-Tuberculosis Association, 1018 N. Jefferson St., Milwaukee 2, Wisconsin.

* * *

The American College of Allergists will hold its seventh Annual Meeting at the Edgewater Beach Hotel, Chicago, February 12-14. In addition, the College is scheduling its "Collegiate Instructional Course" on the three days preceding its Annual Meeting (February 9-10-11) with twenty-five outstanding allergists on the program. Fee for the Instructional Course is $35.

For further information on both the annual meeting and the Instructional Course, write American College of Allergists, in care of Secretary Fred Wittich, M.D., LaSalle Medical Bldg., Minneapolis, Minn.

* * *

Wayne University College of Medicine announces its 1951-52 Postgraduate Course in Basic Ophthalmology. This will be presented beginning in September, 1951, and running for nine months, meeting from 8:00 a.m. to 5:00 p.m. on week days and from 8:00 a.m. to 12:00 noon on Saturdays. Mornings are spent in lectures and laboratories; afternoons, in the clinics of hospitals affiliated with Wayne College of Medicine. Tuition for the course is $900; class limited to ten doctors of medicine.

For complete information and application blank, write to Postgraduate Department, 1512 St. Antoine St., Detroit 26.

* * *

The Michigan Arthritis and Rheumatism Foundation's Medical Advisory Committee will hold a meeting at the Book-Cadillac Hotel Thursday, March 15, during the Michigan Postgraduate Clinical Institute. This will be a dinner meeting followed by a business session at which a report will be made on each of the various research projects which the Foundation is assisting, and also a discussion of any new projects which are anticipated during the next year.

* * *

The American Congress of Physical Medicine will hold its twenty-ninth annual scientific and clinical session September 4, 5, 6, 7 and 8, 1951, inclusive, at the Shirley-Savoy Hotel, Denver, Colorado. Full information may be obtained by writing to the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

(Continued on Page 206)



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(Continued from Page 204)

Michigan Authors.—

Claire L. Straith, M.D., F.A.C.S., of Detroit, published an article, "Plastic Surgery in Dermatologic Lesions," in *The Reprint from The Southern Surgeon,* April, 1950.

William Arendshorst, M.D., and **Harold F. Falls, M.D.,** of Ann Arbor published an article, "Role of the Adrenal Cortex in Treatment of Ocular Disease with Pyrogenic Substances," in the AMA *Archives of Ophthalmology,* November, 1950.

Charles G. Johnston, M.D., F.A.C.S., of Detroit, published an article, "Hemorrhage from the Upper Gastrointestinal Tract," in *Surgery, Gynecology and Obstetrics,* December, 1950.

H. Saul Sugar, M.D.; J. E. Webster, M.D., and **E. S. Gurdjian, M.D.,** of Detroit, published an article. "Ophthalmologic Findings in Spontaneous Thrombosis of the Carotid Arteries," in the AMA *Archives of Ophthalmology,* December, 1950.

Charles J. France, M.D., and **Osborne A. Brines, M.D.,** of Detroit, published an article, "Mesenchymal Tumors of the Stomach," in the AMA *Archives of Surgery,* December, 1950.

Carey P. McCord and **Russell L. Robertson, M.D.,** of Detroit, published an article, "The Appraisal of Detergency Through Radioactive Isotopes," in the *Industrial Medicine and Surgery,* December, 1950.

Robert M. Zollinger, M.D., and **Stanley O. Hoerr, M.D.,** published an article "Indications for Surgery in Gall-Bladder Diseases," appearing originally in *The Journal of the Michigan State Medical Society,* March, 1950, and was reprinted in *The General Practitioner of Australia & New Zealand,* October 15, 1950.

Clifford D. Benson, M.D., and Harvey R. Sharpe, Jr., M.D., Detroit, are authors of an original article "Recent Experiences with Intestinal Resection in Infants and Children" which was published in *Archives of Surgery,* November, 1950

H. Marvin Pollard, M.D., and Arnold Wollum, M.D., Ann Arbor, are authors of an original article "Role of Transfusions in the Management of Gastric Hemorrhage" which appeared in JAMA of January 6, 1951.

David J. Sandweiss, M.D., Harry C. Saltstein, M.D., S. R. Scheinberg, M.D., Detroit, et al are authors of an original article, "Hormone Studies in Peptic Ulcer" which appeared in JAMA of December 23, 1950.

D. B. Ruskin, M.D., Saginaw, published an article, "Comparative Results in Seizure Control Using Phenobarbital Dilantin, and Mesantoin," in *American Journal of Psychiatry,* December, 1950.

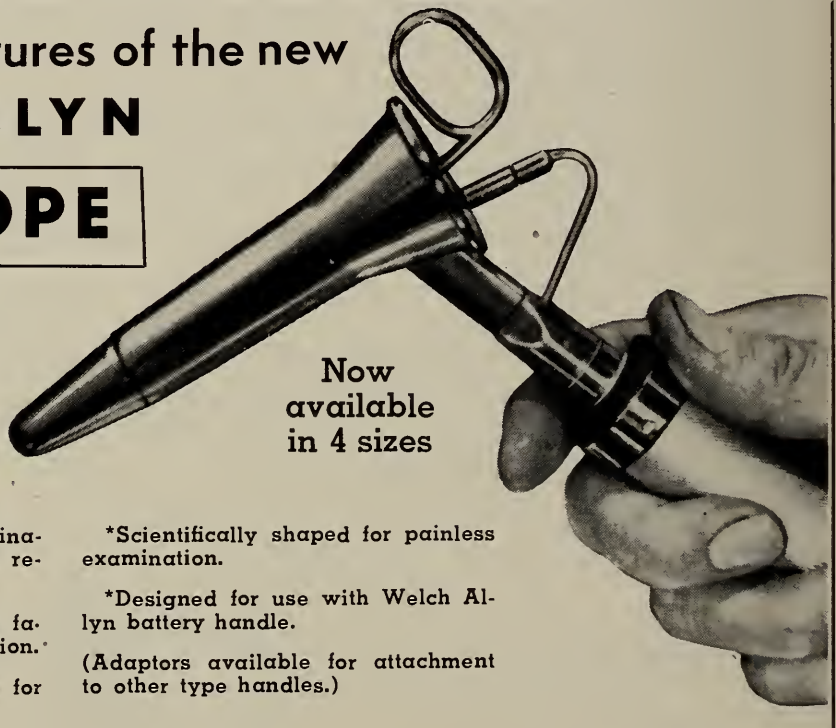
Edgar A. Kahn, M.D., Ann Arbor, published an article, "Direct Observation of Sweating in Peripheral Nerve Lesions; Its Use as a Simple Diagnostic Test," in *Surgery, Gynecology and Obstetrics,* January, 1951.

Charles L. Schneider, Ph.D., M.D., of Detroit, published an article "Fibrin Embolism (Disseminated Intravascular Coagulation) with Defibrination as One of the End Results, During Placenta Abruptio," in *Surgery, Gynecology and Obstetrics,* January, 1951.

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FIVE OF EVERY SIX CASES of pulmonary tuberculosis admitted to Michigan sanatoriums during 1949 were in advanced stages on admission. Nearly half of them were far advanced and more than a third were moderately advanced.

This is the record of 4,318 admissions to Michigan sanatoriums in 1949. Of this total 2,081 (48.1 per cent) were far advanced cases; 1,561 (36.1 per cent) were moderately advanced; 518 (12 per cent) were minimal; and 158 (3.7 per cent) were primary. This distribution varies less than one-half of 1 per cent from the record for sanatorium admissions in 1948. It is likely that the 1950 record, when reports are complete, will be found to be much like it.

In tuberculosis control, the need for both *early diagnosis* and *prompt treatment* are still urgent.

MICHIGAN TUBERCULOSIS ASSOCIATION

LeMoyne Snyder, M.D., Lansing, was guest speaker at the 26th Annual Meeting of the Staff and Board of Trustees of Alexander Blain Hospital, Detroit. The meeting was held at the Detroit Club on November 29. Dr. Snyder's subject was "Medicine and Homicide Investigation."

* * *

Insurance people who worked so hard to bring the facts before the public in Massachusetts and in Washington have proved that intensive education can do the job. They have proved that when the industry is presented with threats to its well-being the battle for its preservation is not a lost cause but is one that can be fought and won. Public education is also the answer to the defeat of legislative proposals which threaten not only the insurance business but free enterprise in general, independent initiative and freedom of choice.

—Insurance Economics Surveys, December, 1950.

* * *

H. S. Collisi, M.D. (formerly of Grand Rapids), has just been appointed Manager and Chief of Professional Services of the new Veterans Administration Hospital in Erie, Pennsylvania. Congratulations, Dr. Collisi!

* * *

G. W. Slagle, M.D., Battle Creek, **Wilfrid Haughey, M.D.,** Battle Creek, and **R. J. Hubbell, M.D.,** Kalamazoo, representing the Michigan State Medical Society, have been appointed members of an Advisory Committee to the State Social Welfare Commission. The purpose of this Committee is to advise the Welfare Commission concerning medical problems which arise, especially in connection with the newly inaugurated Aid to the Disabled program.

J. K. Altland, M.D., Lansing, representing the Michi-



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gan Department of Health, and **Milton Shaw, M.D.**, Lansing, representing the Michigan Social Welfare Commission, also are members of this Advisory Committee, appointed by the State Social Welfare Commission.

The Committee's over-all function is in assisting the Social Welfare Commission to provide an adequate medical program for the recipients of old-age assistance.

* * *

The American Board of Clinical Chemistry, Inc., has been established by representatives of the American Chemical Society, the American Institute of Chemists, and the American Society of Biological Chemists "to encourage the study, improve the practice, elevate and establish standards and advance the science of that branch of chemistry known as 'clinical chemistry'."

Two Michigan men are charter members of the Board of Directors: Oliver H. Gaebler, Ph.D., Detroit, and Clarence W. Muehlberger, Ph.D., Lansing.

* * *

The University of Michigan School of Public Health, Ann Arbor, was granted $358,290 (under the direction of Thomas Francis, Jr., M.D., Professor of Epidemiology) by the National Foundation for Infantile Paralysis, as part of a $1.5 million program in March of Dimes funds for infantile paralysis research and professional education.

* * *

The Commission on Chronic Illness announces a national conference to explore ways of preventing chronic disease, to be held in Chicago March 12-14, 1951. For copy of program write the Commission Staff Director, 535 N. Dearborn Street, Chicago 10, Illinois.

* * *

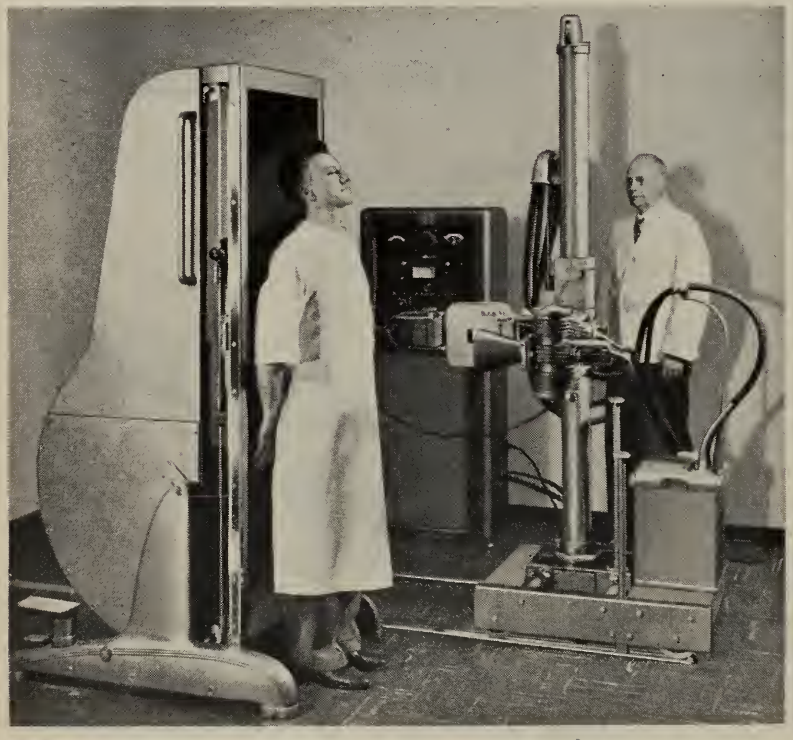
The Ion Optical Company announces its removal to a new location in Detroit, to 40 W. Adams Ave. (next to the Adams Theater). The Ion Optical Company is the successor firm to the Uhlman Optical Company, in Detroit since 1916.

* * *

L. Fernald Foster, M.D., Bay City, MSMS Secretary, spoke to the Saginaw Junior Chamber of Commerce on "Socialism and Medical Care" on October 16, 1950; he addressed the Bay City Exchange Club on October 26 on "The National Health Act"; the Bay County Republican Club, October 30, on "Socialized Medicine"; he spoke over Radio Station WJR on November 2, his subject was "The Four Falsehoods"; Dr. Foster spoke to the Central High School Pre-science Students on November 2 on "Choosing Medicine as a Profession"; the Cadillac Woman's Club and Medical Auxiliary on November 21 on "Socialism and Health"; the Congregation Club, Cadillac, November 21, on "Our Health"; and the Health Officers Association of Grand Rapids, November 29, on "Civil Defense"; the Saginaw Life Underwriters Association on December 8. His subject was "Socialized Medicine and Voluntary Insurance."

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Genessee County Medical Society's Sixth Annual Cancer Day will be held at Hurley Hospital, Flint, Michigan, on Wednesday, April 18, 1951.

The program is as follows:

"The Diagnosis and Treatment of Tumors of the Bone"
Bradley L. Coley, M.D., Attending Surgeon, Memorial Hospital; Assistant Professor of Clinical Surgery, Cornell University Medical School, New York City.

"Radioactive Isotopes"
Robert R. Newell, M.D., Director, Departments of Radiology and Radio-Biology, Stanford University Medical School, San Francisco, Calif.

"Cancer of the Thyroid"
George M. Curtis, M.D., Chairman and Professor of Surgical Research, Medical Department, Ohio State University, and Starling-Loving University Hospital, Columbus, Ohio.

"The General Aspects of the Cancer Problem"
Arthur W. Allen, M.D., Chief, East Surgical Service, Massachusetts General Hospital; Lecturer in Surgery, Harvard Medical School, Boston, Mass.

"Cancer of the Kidney and Bladder"
Reed M. Nesbit, M.D., Professor of Surgery, Medical Department, University of Michigan; Chief of Urological Service, University Hospital, Ann Arbor, Mich.

All members of the Michigan State Medical Society are cordially invited to attend. No registration fee.

* * *

Institute of Industrial Health.—General Motors has begun a $1,500,000 research project to promote better health for its 446,000 employes and those of all American industry. It has joined with the University of Michigan in establishing the Institute of Industrial Health, whose objectives will be research, education and service in industrial medicine, health and safety. General Motors maintains 106 medical departments in as many operating units and employs 125 physicians and 675 nurses, technicians and other medical personnel, a total staff of 800 to carry out the objectives of its overall health maintenance program. The institute will provide fellowships, scholarships and hospital residencies in industrial medicine, health and safety. Of the $1,500,000 granted the University for the institute, $500,000 will be used as needed for equipment. In addition, an annual payment of $100,000 for 10 years will be made by G.M. for research and to meet the expenses of fellowships, scholarships, added faculty and other personnel, a clinic and publications, and refresher courses for doctors, nurses and personnel in auxiliary services. The institute, to begin operations within the next few weeks, will be under the supervision and control of the board of governors to be appointed by the University's Board of Regents.

* * *

President of the newly organized Student American Medical Association is Warren R. Mullen of Jackson, Michigan, a student at the University of Michigan Medical School, Ann Arbor. The SAMA delegates, representing forty-eight U. S. medical schools with a total enrollment of 15,855, met in Chicago, December 28 and 29, 1950, for its first annual session.



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The specialized care and handling required by so many of your elderly patients are available at Battle Creek Sanitarium. Here your geriatric patients can receive every attention that is needed to bolster their nutritional and physical health. When the diet calls for the inclusion of meat and fish, these foods are available, carefully planned by highly trained dietitians and deliciously prepared by competent chefs.

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Wire or call collect for complete information on availability of accommodations.

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NOTICE TO PHYSICIANS USING THE VETERANS PRESCRIPTION PROGRAM

The Michigan State Pharmaceutical Association will be pleased to provide you with free prescription blanks imprinted with the authorization statement. This statement is as follows:

"I am authorized to treat and prescribe for the above-named Veterans Administration's patient."

The use of these blanks saves the writing or printing of the statements by the busy physician, or office personnel. Many doctors have been using this blank since the inception of the V.A. program. Pads of the prescription blanks will be sent upon request by the doctor's office. Direct your correspondence to the Michigan State Pharmaceutical Association, 1510 Olds Tower Building, Lansing, Michigan. Only doctors properly authorized to participate in the home-town treatment of veterans are eligible to use these blanks. Authorization is obtained directly from the Veterans Administration, 310 E. Jefferson Ave., Detroit, Michigan, as has been the established practice.

* * *

The Third Western Institute on Epilepsy will be held in Salt Lake City, Utah, June 15-17, 1951. This meeting will be of wide interest to physicians, public health nurses, employers, teachers, rehabilitation workers, state hospital personnel, educational leaders, etc.

Further information may be obtained by writing to Dr. Harriot Hunter, University of Colorado Medical Center, 4200 East 9th Avenue, Denver, Colorado.

* * *

Thomas H. Cooper, M.D., Port Huron, has been awarded the Venerable Order of the Hospital of St. John of Jerusalem. Congratulations, Dr. Cooper!

* * *

Radiologic Defense.—The eighteenth annual conference of teachers of clinical radiology was held at the Palmer House, Red Laquer Room, Saturday, February 10, 1951. There were two sessions and a luncheon. The program included: Mobilization of Health Resources for Defense, by Norvin C. Kiefer, M.D., H.S.R.B.; The Duties of Physicians in an Atomic Disaster by Brig. Gen. James P. Cooney, M.C., U.S.A. Chief Radiological Branch Military Appliance Division Atomic Energy Commission; Atomic Bomb Effects-Teaching Aids from Armed Forces Institute of Pathology, Robert DeCoursey, MD., Director A.F.I.; Address by C. Edgar Virden, M.D., President A.C.R.; The Diagnosis and Treatment of Radiation Injuries, Comdr. Eugene Cronkite, U.S.N., M.C., Naval Medical Research Institute; Training for the Detection of Radiation Hazards, -Instruments-Personnel, by William Bale, M.D., Biophysics Branch, Atomic Energy Commission; and Radioactive Decontamination by Claude R. Schwob, M.D., Chief of Chemistry Branch, U.S. Naval Radiological Defense Laboratory.

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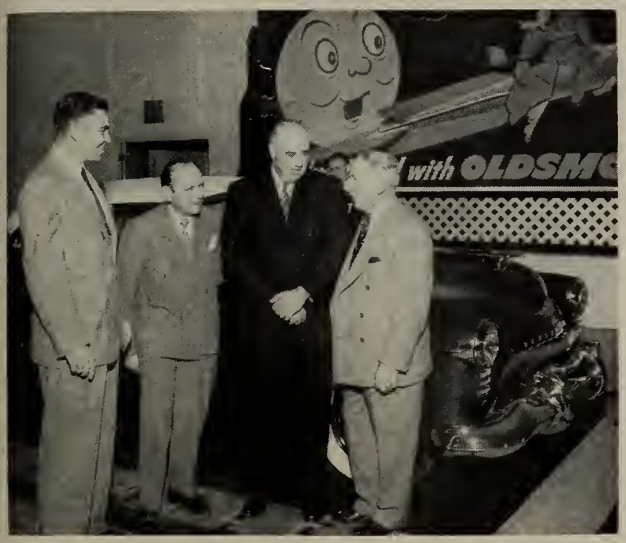
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IN-PLANT MEDICAL SOCIETY MEETING

Members of the Ingham County Medical Society again enjoyed the hospitality of the Oldsmobile Division of General Motors Corporation when they held their monthly meeting in the Olds Auditorium on October 12.

The Society was entertained at dinner and given an opportunity to see the medical facilities of this huge industrial plant which employs over 10,000 employes.



S. D. Steiner, M.D., Oldsmobile medical director *(left)*, J. S. Rozan, M.D., president, and Ralph Wadley, M.D., immediate past president of the Ingham County Medical Society, listen to the Olds success story being told by William J. Mahoney, Oldsmobile personnel director.

The Olds division maintains a medical department at the Oldsmobile main and forge plants as well as four strategically located first-aid stations. The medical staff is headed by S. D. Steiner, M.D., with Edward Place, M.D., as his assistant. In addition, the medical department has thirteen nurses, one x-ray technician and two secretaries.

During the first six months of 1950, more than 58,832 visits by Olds employes were made to the various medical stations, stated Dr. Steiner. This amounts to an average of 600 per day.

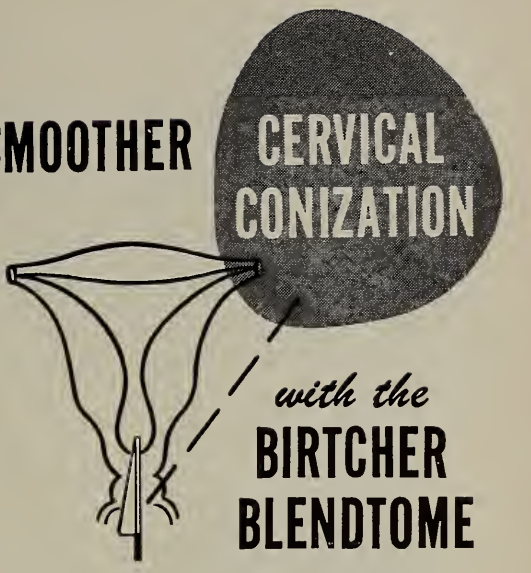
* * *

The Eighteenth Annual Postgraduate Clinic of the West Side Medical Society of Detroit will be held at the Wayne County General Hospital on Wednesday, April 11, from 10:00 a.m. to 4:00 p.m.

The program will consist of a demonstration of medical and surgical cases. All guest physicians will have an opportunity to examine every patient. The demonstrations will be in charge of Dr. H. Harvey Gass, neurosurgeon; S. E. Gould, pathologist; S. D. Jacobson, medical director; M. M. Musselman, surgical director. All physicians are cordially invited to attend. There is no registration fee.

* * *

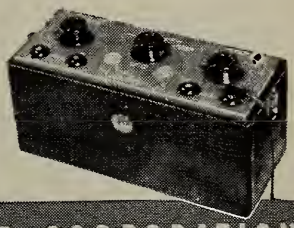
Dr. George L. Waldbott, Detroit, Michigan, was elected honorary member of the Spanish Society of Allergy because of his contributions in the field of allergy.



Frequent necessity of cervical repair suggests the practicality of having a BLENDTOME ELECTROSURGICAL Unit in the office or clinic. With this instrument, the doctor is enabled to do a smoother cervical conization. The BLENDTOME cuts and coagulates simultaneously with a blended current. Scar and other tissue is cut through quickly and easily; blood and lymph vessels are almost instantly sealed. The cleaner field results in reduced trauma and operative shock, smoother convalescence and more rapid healing.

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These are some of the unique values of buttermilk in combatting certain intestinal derangements among infants and adults, in relieving constipation and alleviating stomach disorders. For buttermilk of uniformly high quality, made with pasteurized milk, may we suggest Sealtest Buttermilk?

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Four Fellowships in Industrial Medicine.—The U. S. Atomic Energy Commission will offer four fellowships in industrial medicine for the 1951-52 academic year, continuing a special fellowship program begun last September. The program is administered for the AEC by the Atomic Energy Project of the School of Medicine and Dentistry, University of Rochester, Rochester, N. Y., and fellows are selected by a committee headed by Dr. James H. Sterner, Associate Medical Director of the Eastman Kodak Co. and Consultant in Industrial Health to the AEC.

The purpose of the special fellowship program is to provide advanced training and on-the-job experience to men and women medical doctors in the field of industrial medicine, particularly in relation to the atomic energy industry.

* * *

One Washington writer reported that out of 166 charter members of the Committee for the Nation's Health, at least ninety-two have subversive records, according to the House Un-American Activities Committee. There is an old saying that one bad apple can spoil a barrel, but what if over half of them are bad?

* * *

Student American Medical Association.—Student delegates from forty-eight medical schools throughout the country, with a total membership of 15,855, met at AMA headquarters in Chicago, December 28-29.

The organization will have as its objectives the advancement of medicine; contribution to the welfare and education of medical students; familiarization of its members with the purposes and ideals of the medical profession, and preparation of its members to meet the social, moral and ethical obligations of the profession.

Warren R. Mullen, Jackson, Michigan, a student at the University of Michigan Medical School, was elected president; Harry W. Sandberg, Moline, Illinois, a student at the University of Illinois College of Medicine, vice president, and David Buchanan, Huron, S. D., a student at the University of South Dakota School of Medical Sciences, treasurer.

Seven other students were elected to the executive council.

The association will be made up of academic societies in medical schools of the United States which are approved by the Council on Medical Education and Hospitals of the AMA. Each society, not more than one at any school, must have a membership of at least one-fourth of the students, or eighty-five students, whichever is the smaller.

An advisory committee to each constituent society will be composed of the dean of the school, or his appointed representative; two faculty members elected by the students; a county medical society representative and a state medical society representative.

The student house of delegates has named its president and vice president as representatives to the AMA House of Delegates. A change in the constitution of the AMA to provide such representation is expected to become effective at the annual meeting in Atlantic City in June.

Say you saw it in the Journal of the Michigan State Medical Society

First Two Million.—In Detroit, Sunday, January 21, 1951, L. Howard Schriver, M.D., president of the Blue Shield Medical Care Plans Commission, presented a plaque commemorating the achievement of the first two million subscribers to R. L. Novy, M.D., president of Michigan Medical Service.



(Left to right) C. E. Umphrey, M.D., president, Michigan State Medical Society; L. Howard Schriver, M.D., president, Blue Shield Medical Care Plans; R. L. Novy, M.D., president, Michigan Medical Service; Maj. General George F. Armstrong, Deputy Surgeon General of the Army.

* * *

AEC Offers 45 Fellowships in Biological and Medical Sciences.—Among 325 fellowships offered by Atomic Energy Commission for next year, 45 are post-doctoral fellowships in the biological and medical sciences. The program will be administered by Institute of Nuclear Studies, Inc., of Oak Ridge, with National Research Council screening applicants. The biological and medical fellowships pay $3,000 in addition to dependency allowances. Some type of security clearance is required of all AEC fellows. (For full details of AEC medical program, see Capitol Clinic No. 46.)

* * *

Calhoun County Cancer Committee.—The Calhoun County Medical Society has appointed the following members as its cancer committee for 1951: A. R. Dickson, M.D., A. A. Humphrey, M.D., Stewart Barden, M.D., and Richard Stiefel, M.D., chairman, all of Battle Creek.

* * *

Rear Admiral Joel T. Boone Retires.—Marines in full dress—band and all—turned out to honor Rear Admiral Joel T. Boone upon his retirement after thirty-six years of Navy service. Admiral Boone, the most decorated physician in Navy history, had held numerous high Navy assignments and at the time of his retirement was Inspector of Medical Services. Admiral Boone won the Congressional Medal of Honor (highest combat decoration) for treating wounded after a shell blew up a Marine regimental aid station at Belleau Wood in 1918. Subsequently he received the Distinguished Service Cross and Silver Star with five Oak Leaf clusters and Purple Heart with two Oak Leaf clusters. Admiral Boone was a friend of presidents as well as miners. He served as physician to Presidents Harding, Coolidge and Hoover. Three years ago he prepared a report highly critical of health conditions in the coal-mining industry.



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The Z-70 Zoalite — prescription model for use in the home over short or long periods.

The Z-12 Zoalite — 600 watts — a professional infra-red unit.



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*LERRIGO, MARION O., "Shoes Don't Grow," Today's Health, 29:52-54 (Jan.) 1951.

The Ann Arbor School

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British County Orders Doctors to Join Union.—A recent newspaper story said that fifty doctors employed by the socialist controlled Durham (England) county council have been told to join a trade union, under a threat of dismissal if they failed to do so. The warning was sent out by Dr. Iram McCracken, county medical officer, on council orders. The council recently passed a "join a union or be fired" rule for all its employes.

Most of the doctors affected work in child welfare and maternity services, as school doctors, and as district medical officers of health. All are members of the British Medical Association, which opposes any moves toward setting up a closed shop for doctors.

* * *

White House Conference on Children and Youth.—Youth Conference Recommendations Avoid Controversies in Health Areas: In winding up its four-day meeting, the White House Conference on Children and Youth approved a volume of recommendations, some touching on health matters, but such controversial questions as national compulsory health insurance, U. S. aid to medical education and total and permanent disability insurance were dropped out along the way.

One recommendation of the President's health plan was prepared by a work group, but was deleted by the Recommendations Committee, so the full conference did not vote on the question. Another group wrote in a recommendation for U. S. permanent and total disability insurance as a means to contributing to the security of children. However, this phrase also was deleted and the recommendation as finally adopted by the conference reads: ". . . as an aid to the economic stability of children and their mothers (we recommend that) the old age and survivors insurance program be further extended to cover workers not presently included and to make benefits more adequate; and that similar improvements be made in state unemployment insurance laws."

Several recommendations could be interpreted as indorsement of the U. S. aid to medical education, but the connection was not direct. An example: "(We recommend) that steps be taken at National, state and local levels to improve the facilities and increase the output of professional schools preparing persons for services to children."

However, the conference gave unqualified indorsement to pending legislation for aid to local public health units. That recommendation read: "Prompt action should be taken at the national level to provide funds to supplement those of states and localities, and to stimulate the early development of adequate local (public) health service throughout the country, such action being particularly needed because of the physical and mental effects of mobilization and war on mothers, children and youth."

A number of recommendations touched on other health and medical matters. Some of the principal ones: 1. More research is needed on development and adjustment of youth. 2. States should establish standards for hospital care of mothers and children, as well as minimum health standards for day-care center schools and kinder-



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gartens. 3. In developing new housing facilities, special attention should be given to "health, recreational and social needs," and children of migrant workers should receive the same health and similar services given to other children

One study section released a critical finding regarding present health services for children, but it was not included in the recommendation. This statement said: "Present health services have many inadequacies, particularly in relation to furthering healthy personality development in children and youth. Many now rendering such services do not fully understand nor give attention to the dignity and emotions of the individual, which are necessary to healthy personality development."

* * *

Army Physician Call-ups to Total 1,733 by March.—Physicians added to Army's rolls by men called up on mandatory orders and draft-eligible volunteers since the outbreak of the Korean War will reach 1,733 by mid-March. Army hopes its latest call for 980 company grade medical officers, will be filled by volunteers now classified "Priority I" under the doctor-draft—government-educated physicians with less than ninety days' active duty. A Selective Service spokesman said they are not to come through Selective Service, except as a last resort. Army hopes the men will volunteer for active duty with the reserves. The 980 physicians will go on active duty on two dates—February 5 and March 13. At the same time 850 dental officers, also classified "Priority I" are expected to report for duty.

Before this call for volunteers went out, Army had involuntarily called 208 reserves since July 1 and had requisitioned 545 draft-eligible physicians. All 545 are expected to be on active duty by February or March.

* * *

Admiral Pugh Nominated for Navy Surgeon General. Rear Admiral H. Lemont Pugh has been nominated by President Truman to succeed Admiral Clifford A. Swanson as Navy Surgeon General. Admiral Pugh received his medical degree from the University of Virginia, Department of Medicine, in 1923, and has served with the Navy since. For the last four years he has been Deputy and Assistant Chief of Navy's Bureau of Medicine and Surgery.

* * *

Interim Report Being Drafted on Chemicals in Foods.—Because it wants to continue its investigation, the House Committee on Chemicals in Foods will ask for more funds and additional time. Its interim report now being drafted will not make definite legislative recommendations, but will state that the country's best scientists recognize that new chemicals present a health problem. The committee hopes to reopen hearings on the West Coast after the first of the year. The general objective is to establish regulations and controls for the protection of the public from harmful effects of pesticides, preservatives, et cetera, yet not weigh down the chemicals industry with requirements which might for practical reasons stifle research and development.

Say you saw it in the Journal of the Michigan State Medical Society



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Workers' Coverage in Health and Hospital Plans Mounting.—Special study just completed by Bureau of Labor Statistics discloses sharp increase in number of industrial workers covered by collectively bargained medical and hospital care, pension and general welfare benefits. Upward of 7,650,000 employes now have such protection, according to results of questionnaires sent to more than 200 national and international unions and to a smaller number of single-firm unions. Since 1948, coverage has increased more than 100 per cent. Life insurance ranks first among types of insurance most frequently provided in contracts, followed by hospitalization, surgical and/or medical care, accident and sickness, and accidental death or dismemberment. Nearly one-half the workers surveyed are in CIO-affiliated unions and about one-third are members of AFL organizations, remainder being in independent or unaffiliated unions.—*WRMS*, January 1, 1951.

* * *

President's Emergency Powers.—Among the President's new Emergency powers is the right to hire any necessary number of contract doctors for the Armed Forces.

* * *

American Academy of Neurology.—The American Academy of Neurology announces its 1951 meeting, which will be held April 11-13, inclusive, at the Cavalier Hotel, Virginia Beach, Virginia. This meeting will be devoted almost entirely to clinical neurology and the last session will be held jointly with the American League Against Epilepsy and will be devoted entirely to the subject of epilepsy. The Academy is instituting a new feature in association with their meeting—there will be an intensive Review Course in Neuropathology which will be presented during the morning, afternoon and evening hours of April 9 and 10 immediately preceding the meeting. The review course will be accompanied by projection of slide material which was made available to the participants in this course immediately after the first of this year. For further information regarding the course in neuropathology and the meeting, address any correspondence to D. B. Ruskin, M.D., Program Chairman, 301 Second National Bank Building, Saginaw, Michigan.

* * *

Kresge Eye Institute Affiliates with Wayne University.—Formal affiliation of the Kresge Eye Institute with the Wayne University College of Medicine was approved by the Detroit Board of Education at its meeting, Tuesday, December 26.

The Board of Trustees of the Institute and the College of Medicine's Committee on Administration adopted a resolution which stated that it was recognized that the ultimate interests of the community and the ophthalmologic care of patients will be better served by the amalgamation of the forces of the Kresge Eye Institute and the Wayne University College of Medicine.

Details of the affiliation include the provision that appointments to the scientific staff of the Institute will be made by the Board of Trustees of the Institute when such recommendations bear the endorsement of the faculty of the Wayne University College of Medicine transmitted to the Institute Board through the duly



authorized officials of the University. In addition, the dean of the College of Medicine, or his appointed representative, will be a member of the Board of Trustees; and the director of the Institute, or his appointed representative, will be a member of the Committee on Administration of the College of Medicine.

Officials of the Institute and the University expect that the affiliation will bring national support to both on a wider basis than would be possible without the combined resources. Each agency will, in addition, have greater resources in terms of personnel and research techniques upon which to draw.

* * *

All physicians in Michigan who render obstetric care are requested to report immediately to the **Michigan Department of Health,** by phone (charges reversed), when a maternal death occurs in their practice. State the name of the mother, date, place and cause of death.

Published at the request of the Maternal Mortality Study Committee of Michigan State Medical Society and the Michigan State Board of Health.

* * *

2,100 physicians were registered at the **Cleveland interim session** of the American Medical Association in December. Guests including residents, interns, nurses, medical students and technicians were 1,677. The first interim session meeting in January 1948, at Cleveland, 1,896 registered. In November 1948, the second meeting, 1,048, St. Louis, Mo., and the November 1949, meeting at Washington, D. C., 3,942. Many questions were asked as to the advisability of continuing this session. The decision was, Yes.

* * *

The American College of Radiology has instituted a course of instruction in Radiologic Defense underlining the responsibility of radiologists in atomic attacks, and it is suggested that State Medical Associations and County Medical Societies avail themselves of the services of local radiologists in the development of the local civil defense program.

* * *

Committee Member.—At its meeting held early in January, the Board of Trustees of the AMA elected Dr. L. Fernald Foster, Business Manager of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, to succeed himself as a member of the Advisory Committee of the State Journal Advertising Bureau.

* * *

Michigan Hospital Service—Michigan Medical Service Enrollment.—Doctors and their office assistants will be able to enroll in Blue Cross and Blue Shield again this year between March 10 and April 10, 1951. Applications accepted during this period will be given the effective date of May 1. No applications will be accepted after April 10 unitil the regular annual enrollment period next year.

During the period between March 10 and April 10, all doctors and assistants who are already members may make changes in their contracts. These changes may include the addition of services to present hospital only

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or hospital-surgical service. Dependents up to nineteen years of age not previously included may also be added to the contract.

Enrollment materials, with instructions regarding procedures, will be mailed to all members of the Michigan State Medical Society by the opening date of the enrollment period. The envelopes containing the enrollment materials will be specially marked to indicate their contents. Questions pertaining to enrollment or the contracts may be directed to Michigan Hospital Service, 234 State Street, Detroit 26, Michigan.

* * *

Full-Time Local Health Departments.—The Federal Security Agency through the Public Health Service has issued an attractive pamphlet, "Your Best Buy," eight pages in color and illustrated showing that $1.50 per person per year in tax support from all sources will get a community Health Service started, which can render the seven basic services of a local public health department: (1) communicable disease prevention and control; (2) sanitation, (3) maternal and child health service; (4) vital statistics; (5) laboratory services; (6) health education; (7) chronic disease prevention and control.

* * *

State Aid Statistics for Hospital Cases.—The *Journal of the Maine Medical Association* for December, 1950, has a very illuminating article by Frank C. Curran, Director of the Eastern Maine General Hospital. Figures are presented which were taken from official reports of the State Bureau of Health, Department of Health and Welfare. Citizens of the State of Maine who are placed in financial distress because of hospital expense, but who are otherwise self-supporting, may apply for state aid to assist them in meeting their expenses of hospitalization. A tabulation of figures is given for all the hospitals of the state showing state aid days, per cent of total state aid, cost per day, total cost, State aid received 1949-1950 loss before patient payments, net loss per patient day. Main General Hospital had 20,786 State aid days, cost $15.44 per day, net loss per patient day $10.84. Children's Hospital figures for the same items was 7,382, $15.44, loss $10.79. Madigan Hospital showed the least loss, 2,034 patient days, cost $9.72, loss $4.07. North Maine General hospital had 6,765 patient days, cost 8.13 and loss $3.47. The average of all hospitals 111, 248 patient days of State aid, average cost $12.68 and loss $8.07.

Obviously hospitals cannot run under such conditions unless someone makes up the difference, and that does not come from the state. It comes from some donations, some endowments, but chiefly from extra charges to all other patients.

This same condition obtains in Michigan. Someone should make a study of the exact data. We understand the new legislature will be asked to correct some of these state aid abuses. There is no reason why the great State of Michigan should need help in caring for its charges. The hospital aid for indigent, welfare, children and afflicted is fixed in the law and is totally inadequate.

Say you saw it in the Journal of the Michigan State Medical Society

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

COLOR ATLAS OF PATHOLOGY. Hematopoietic System—Reticulo-Endothelial System Respiratory Tract—Cardiovascular System—Liver Alimentary Tract—Kidney and Urinary Tract, and Musculoskeletal System. Illustrated with 1053 figures in color on 365 plates. Philadelphia: J. B. Lippincott Co., Price $20.00.

This is a beautifully illustrated atlas on pathology, which, probably from a pictorial standpoint, has no equal in the English language. It is the result of six years of compilation by the staff of the U. S. Naval Medical School and National Naval Medical Center at Bethesda, Maryland, aided by civilian consultants, particularly by Dr. C. F. Geschickter. The bulk of the book's reading matter explains an adjacent and excellently colored gross specimen or photomicrograph. The text unassociated with photographs is terse and to the point, and covers a very wide range. If any fault is to be found with the atlas it lies in the fact that all of the colored illustrations are of the same size, regardless of whether they are pictures of bulky gross specimens or photomicrographs. This has made it necessary to condense relatively large specimens so that considerable necessary detail is lost. That portion of the book devoted to the pathology of the liver and the kidney is particularly excellent. Most of the pictures serve to illustrate a brief case report typical of the condition, and not only consist of the colored gross and histological findings, but reproductions of x-rays, diagrams, and even photographs of the patient. The Medical Corps of the U. S. Navy is to be complimented on the completion of a remarkable work.

A.A.H.

PHYSICIANS' AND NURSES' CONCISE MEDICAL ENCYCLOPAEDIA. By William H. Kupper, M.D., Author of "Malarial Therapy of Pareses;" "State and National Board Summary;" "Interesting and Useful Medical Statistics." Los Angeles: Biblion Press. Price $7.50.

The author has recognized the inadequacy of a dictionary and the super abundance of an encyclopedia for use of nurses and students.

This present book is a happy medium. The description and comments are sufficiently long to give a definite picture but not too long for quick reference. The print is large, clear and there is no small type. A handy aid.

RESEARCHES IN BINOCULAR VISION. By Kenneth N. Ogle, Ph.D., Section on Biophysics and Biophysical Research; Research Consultant in the Section on Ophthalmology, Mayo Foundation and Mayo Clinic, Rochester, Minnesota. 345 pages with 182 figures and 26 tables. Philadelphia and London: W. B. Saunders Company, 1950. Price $7.50.

The problem of binocular vision presents many complicated problems when it manifests itself as a problem. This goes very minutely into the physics and mathematics of binocular vision, and the many unexplained abnormal reactions noticed for years. A few men worked out some answers, and finally a study group was established at Dartmouth where minute studies were made and methods of correcting abnormalities were devised. The most important however was probably



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Surgical Anatomy and Clinical Surgery, two weeks, starting February 19, March 19, April 16.
Surgery of Colon and Rectum, one week, starting March 5, April 9.
Basic Principles in General Surgery, two weeks, starting April 2.
Gallbladder Surgery, ten hours, starting April 23.
Fractures and Traumatic Surgery, two weeks, starting March 19.

GYNECOLOGY—Intensive Course, two weeks, starting February 19, March 19.
Vaginal Approach to Pelvic Surgery, one week, starting March 5, April 2.

OBSTETRICS—Intensive Course, two weeks, starting March 5, April 2.

MEDICINE—Intensive General Course, two weeks, starting April 23.
Gastro-enterology, two weeks, starting May 14.
Gastroscopy, two weeks, starting March 5.
Electrocardiography and Heart Disease, two weeks, starting March 19.

PEDIATRICS—Intensive Course, two weeks, starting April 2.
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the development of scientific means of study and interpretation. The author was one of that group, working independently for a time, and with unusual success, then he joined the group. This book is a complete study of the mathematical formulae, the methods of study, and analyses of many findings. The book is advanced reading, only understood if studied in uniformity, and it is not to be read, but to be studied and experienced. A most important addition to the ophthalmic field, dealing with abnormalities.

NATURAL CHILDBIRTH. A Manual for Expectant Parents. By Frederick W. Goodrich, Jr. New York: Prentice-Hall, Price $2.95.

This is a rather extensive book for the education and guidance of expectant mothers. It gives clear and detailed accounts of the natural physiological process of the period of pregnancy, taking up each trimester by itself. There are chapters on when to visit the doctor, relaxation, exercise, diet, breast feeding, also chapters on the physiology of labor, and the psychology of labor.

The book is intended for use of the patient, and adds materially to the doctor's satisfaction and his patient's well being.

FREUD: DICTIONARY OF PSYCHOANALYSIS. Edited by Nandor Fodor, Associate of the Association for the Advancement of Psychotherapy, and Frank Gaynor, Co-Author of the "Dictionary of Industrial Psychology," with a Preface by Theodor Reik, Author of "Listening with the Third Ear." New York: Philosophical Library.

The author complains that the definitions and terms used by Freud have been changed and have made psychiatry confusing.

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In this little book he has gone back to the original writing and has restated definitions and usages as they occur in psychiatric literature.

A very interesting combination of dictionary and encyclopedia.

PARKINSON'S DISEASE. By Walter Buchler. Advice and aid for sufferers from Parkinson's disease and other physical disabilities. London: Walter Buchler. Price $2.00.

This monograph is written by a layman who has been afflicted with the disease for eight years and is for his "fellow sufferers." It is in language that they can understand and should be of value to each and every one of them. The amount of practicable information that it contains should not only be known to them but also by all physicians who may have only one "P.D." patient or ever expect to see one in their practice. It is easy reading and as it is basically an autobiography with a story to tell, it maintains one's interest and after its completion one feels that the time spent has been well worth while. This book can be heartily recommended to all persons having Parkinson's disease.

G.W.S.

FACTS ABOUT AMA DUES

(Continued from Page 130)

from the payment of American Medical Association membership dues only under the provision described in Paragraph 8 above.

10. American Medical Association membership dues include subscription to *The Journal of the American Medical Association.* Active members of the Association who are excused from the payment of dues will not receive *The Journal* except by personal subscription at the regular subscription rate of $15.00 a year.

11. Member Fellows may substitute one of the special journals published by the Association for *The Journal* to which they are entitled as members. A Fellow who substitutes a special journal will not also receive *The Journal.*

12. A member of the American Medical Association who joins the Association on or after July 1 will pay membership dues for that year of $12.50 instead of the full $25.00 membership dues.

13. An active member is delinquent if his dues are not paid by Dec. 31 of the year for which dues are prescribed and shall forfeit his active membership in the American Medical Association if he fails to pay the delinquent dues within thirty days after the notice of his delinquency has been mailed by the Secretary of the American Medical Association to his last known address.

14. Members of the American Medical Association who have been dropped from the Membership Roll for nonpayment of annual dues cannot be reinstated until such indebtedness has been discharged.

15. The apportionment of delegates from each constitutent association shall be one delegate for each thousand (1,000), or fraction thereof, *dues paying active members of the American Medical Association* as recorded in the office of the Secretary of the American Medical Association on December 1 of each year.—A.M.A. Secretary's Letter, Jan. 8, 1951.

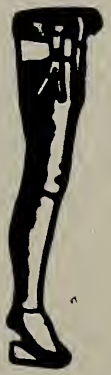
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LOCUM TENENS: Second year pediatric resident desires pediatric locum tenens practice for month of March, 1951. Write: G. Pulford, M.D., 205 Observatory, Ann Arbor, Michigan.

WANTED—M.D. for community without medical care for some time. Fifteen bed hospital, with x-ray, modern operating, delivery and laboratory facilities to open soon. (Non-sectarian). Growing resort area, near Traverse City, and twelve miles from Manistee. Write Memorial Hospital Board, Attention Mrs. Leonard Erickson, Onekama, Michigan.

ARMY DEVELOPS PERFECT SUBSTITUTE FOR MORPHINE

(Continued from Page 138)

generally administered subcutaneously, it may be given intravenously or by mouth.

The Army operates under the most exacting and variable conditions throughout the world. Accordingly, before making a final appraisal of methadone it was felt that the ultimate test lay in using it in the most demanding environment we ever expect to encounter. Actually, two field tests were made in the Far East, one by three doctors at Toyko Army Hospital who administered methadone on a round-the-clock basis; the other by Dr. Beecher himself at the evacuation hospital near Hamhung. In the field it was used preoperatively in from minutes to hours of the time men were wounded. One major objective of the Korean field tests was to see whether it would stand up under the stress and strain of abnormal conditions. It did, even when the temperature was 27 degrees below zero. Methadone has the same rapidity and duration of effect as morphine.

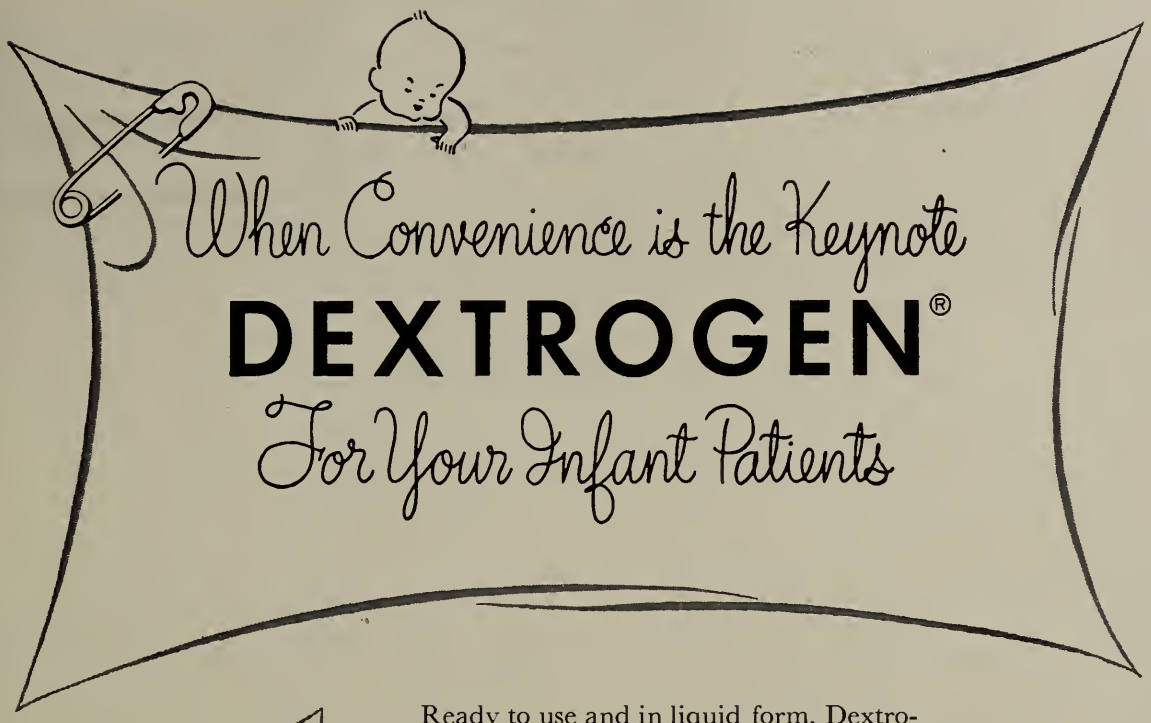
At the Anzio beachhead where he spent seventy-five days, Dr. Beecher found that men with severe wounds are not always in pain. The reason for this, he said, is that emotion can block pain. He further stated that only one-fourth of seriously wounded men feel enough pain to want a pain-relieving drug.

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*Applicable third week and thereafter; 1:3 for first week, 1:2 for second week.

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Cancer Comment

TUMOR CHEMOTHERAPY

For almost half a century scientists have been studying the possibility of curing cancer by exposing the malignant growth in the body of the cancer patient to chemicals in order to destroy the cancer tissue without also damaging or destroying the normal tissue.

In the beginning there was (and still is to a certain extent) an empirical selection of chemical agents chosen for these studies. There were no acceptable scientific facts on which to base the studies, and they were undertaken largely on hypotheses based on experiments in related scientific fields. In fact, the use of chemical agents as arsenic, zinc and other metals in the treatment of cancer goes back to the beginnings of medical history where their use was reported in India, Egypt, and Persia. Today, these same chemicals form the chief ingredients of the widely advertised "cancer cures" of the quack and charlatan.

Many of the early studies employed caustic chemicals known to be destructive to protoplasm. Bacterial filtrates, of which Coley's toxin is perhaps best known, have also been tested in large numbers. Analgesics, as cobra venom and opium, have been tested for their cancer-destroying power as well as their ability to relieve pain.

Both organic and inorganic chemical agents have been exhaustively studied. The emphasis today seems to veer toward organic agents because it is increasingly realized that the cancer cell has the same progenitor as all other cells in the same body and that biochemical forces caused the changes in the cell that made it cancerous. If this is so, the cure of cancer may lie in the discovery and use of those same biochemical forces or their antagonists within the body. It seems most unlikely that an inorganic chemical, regardless of how destructive it may be to cancer tissue *in vitro,* will be able to exercise the same destructive selective action on cancer *in vivo* without also destroying all normal tissue with which it comes in contact. When it is recognized that each of the many forms of cancer is surrounded with different environmental conditions, the search for one destructive chemical universally applicable to all forms of cancer seems almost hopeless, especially when a chemical selectively destructive to even one form of cancer has not yet been found.

Among the lines of chemotherapeutic research being currently followed might be mentioned the isolation from protozoa of substances that damage tumor tissue. Dietary studies by means of alkaline diets are also under way. Foods containing added glucose and other carbohydrates are being tested for their effect on cancer tissue. Heptaldehydes, having a known inhibiting effect on tumor growth, are being studied. Amino acids are tumor inhibitors. Colchicine is known to inhibit mitosis. These, and many other organic chemicals are under investigation as chemotherapeutic agents.

The role of hormones, both natural and synthetic, in the treatment of cancer has long been studied. The carcinogenic properties of many of these biologic products is well known, as well as their inhibiting action on tumor growth when employed in the opposite sex. The action of stilbestrol on prostatic cancer and testosterone on breast cancer are well known examples. However, their action at this time is palliative and not curative.

In spite of the vast amount of research that has been and is being carried on, no agent has been found specifically destructive to tumor tissue.

Out of the many research studies on growth now being conducted under supervision of the National Research Council (see Jrn. MSMS, June, 1950, p. 636) there is hope that leads will develop indicating which side of the cancer cell is the most vulnerable to attack. Until this Achilles' heel is found, reliance must be placed on surgery and radiation with x-rays and radium for the treatment and destruction of cancerous growths.

A recent publication, "An Index of Tumor Chemotherapy," by Helen M. Dyer, Biochemist, National Cancer Institute, Bethesda 14, Maryland, presents an exhaustive report on the whole tumor chemotherapy problem. Dr. Dyer has collected comparable data on 5,031 different chemicals and their compounds reported in scientific literature to which she and associates had access. A bibliography of 2,213 references is appended which refers to the subject matter discussed. This huge bibliography gives some indication of the amount of

(Continued on Page 240)

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Editorial Comment

THE TIME IS NOW

Prepayment of costs of medical and hospital care, on a voluntary basis, has worked out very successfully, in the United States, as demonstrated by the millions of Americans who are budgeting for both routine and emergency care through the medium of insurance.

Blue Shield and Blue Cross have played a particularly effective part in the continuing evolution and improvement of voluntary prepayment plans and have demonstrated that such plans can function successfully and economically.

There is danger, however, that premium costs can rise to such heights that the average American family will be unable to afford voluntary insurance. Obvious factors, directly raising costs to the policyholder, are the present trends toward inflation, and the oncoming higher taxation which will leave less actual dollars for the buying of prepaid insurance.

Less obvious, but just as dangerous circumstances, that affect premium costs are what we, as physicians, do to our own Blue plans. Premium costs rise with increased utilization. Therefore, each unnecessary laboratory procedure ordered or indulging the patient with even one extra unnecessary day's stay in the hospital or hospitalizing the case that needs custodial care or hospitalizing a patient for a rest or because it's a vacation time or hospitalizing a patient for laboratory studies that could and should be done in private laboratories, results in increasing costs to the subscriber.

When WE misuse the Blue Plan, we commit an impractice. In addition, we are doing a disfavor to both the patient and ourselves. THE TIME IS NOW to realize that Blue Cross is NOT ONLY the "hospital's" plan. IT IS OURS, AS WELL.

We must realize that the prepayment plan is our answer to socialized medicine and that it has been, to date, the most practical obstruction to the realization of the socialist dreamer's schemes—far more effective than movies, pamphlets, writing to congressmen, speech making, button-holing patients to join our crusade, and the bombarding of physicians with propaganda material, most of which is tossed into the waste basket unread.

Unless each one of us individually guards against abuses leading to over-utilization of the Blue plans, we may well back ourselves into socialized medicine.—FRANK A. WEISER, *Detroit Medical News,* December 25, 1950.

OSCAR NEEDS TO BE TOLD

Someone should take Oscar Ewing into the study and tell him the facts of political life.

Someone needs to tell the federal security administrator that across the country last November 7, Ewingism—the steady extension of the handout state, of which Oscar is the prime herald—was repudiated. Doesn't Ewing even know that even some Democratic candidates for congressional office disavowed socialized medicine and further federal intrusion into education, of which Ewing is the principal apostle?

Someone needs to tell Oscar Ewing that we are in imperative need of devoting our human and material resources to strengthening our defenses—not to paying for Ewing's cockeyed schemes of socialization.

Even after President Truman had informed members of Congress that 18 billion dollars more than is already pledged to that purpose, would be needed for defense, Ewing made a speech in which he again advocated the passage of bills to set up a national health insurance system and federally to subsidize medical education.

For Ewing to use the present crisis in international affairs as a pretext for pushing forward his schemes to socialize American medicine to a high degree is inexcusable.

Ewing's latest utterances do minus nothing to fulfill what Mark Sullivan, the political historian, said in a recent *New York Herald Tribune* column was a great need by the American people—the need of confidence, a feeling "of assurance on the part of the people that things will be done well" in this critical period.

"What is needed is to make the people feel that the president has waived some of his own prerogatives of judgment, that he follows on a broad scale a practice of deferring to others—including especially ones whom in the past he has opposed and ones who hold principles and

(Continued on Page 240)

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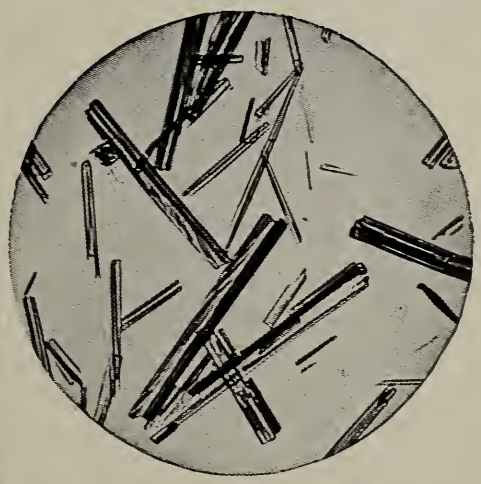
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OSCAR NEEDS TO BE TOLD

(Continued from Page 238)

have an outlook contrary to what has been his," Sullivan wrote.

For Ewing, at this time, to keep on advocating the handout state on a bigger and broader scale does not inspire public confidence in the federal administration, in its ability to put first things first, in its willingness to forego expenditures—as usual for domestic functions that can be trimmed or eliminated in this hour of need to strengthen the nation against Russian imperialism.—Editorial, *Cleveland Plain Dealer,* December 5, 1950.

TUMOR CHEMOTHERAPY

(Continued from Page 234)

research already expended on this problem. References to chemicals exploited by quacks and charlatans for purely commercial purposes have been omitted. Copies of this Index of Tumor Chemotherapy may be obtained without cost from the National Cancer Institute, Bethesda 14, Maryland.

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The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

VOLUME 50 MARCH, 1951 NUMBER 3

Development, Use and Effects of Atomic Energy

By Macon Miller, M.S.

Detroit, Michigan

THE PHENOMENA of radioactivity were discovered in 1896 by Becquerel. They form the basis for the investigations of atomic energy which have led to the development of the atomic bomb and substantiation of Einstein's theory of the equivalence of mass and energy.

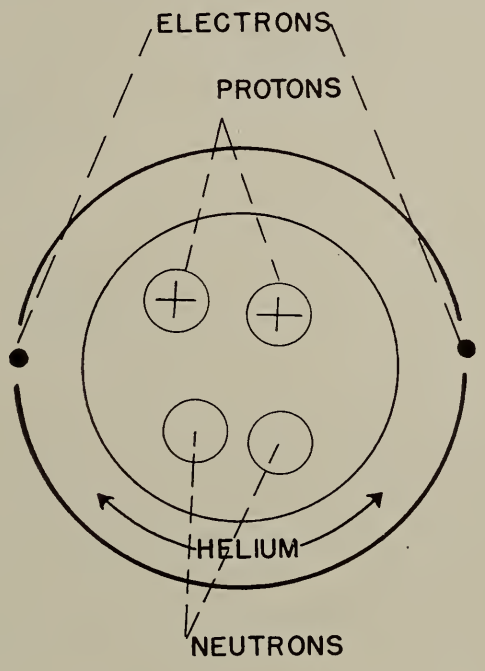
As we know, each atom contains a nucleus and its attendant electrons (Fig. 1).

Radioactivity is a phenomenon of the nucleus of the atom, and consequently lies in the field of nuclear physics. Certain definitions and elementary theories must be understood if we are to find out how atomic energy "works."

Each nucleus is characterized and identified by two numbers: its atomic number, Z, and its mass number, A.

$$_{Z}He^{A} = {}_{2}He^{4}$$

Z represents the charge on the nucleus, expressed as an integral number of positive electronic charges; it thus specifies the chemical element to which the nucleus belongs. The mass number, A, specifies the number of elementary or primary particles forming the nucleus. The primary particles in the nucleus are *neutrons,* which are uncharged, and *protons,* which carry a positive charge and hence are responsible for the atomic number. Thus the number of neutrons (N) in the nucleus is A-Z. For example, in uranium 235 (element 92), $A = 235$ and $Z = 92$. Therefore N is 235 — 92, or 143.



THE ATOM

Fig. 1

$$\text{URANIUM } {}^{235}_{92}U^{235\ (A)}_{(Z)}$$

A-Z = 143 NEUTRONS IN THE URANIUM NUCLEUS

Atoms with the same Z number but different A numbers are called *isotopes.* The isotopes of uranium 235 and 238 are well-known examples.

$$_{92}U^{235} \overset{\text{ISOTOPES}}{\longleftrightarrow} {}_{92}U^{238}$$

Presented before the staff of Wayne County General Hospital and Infirmary, Eloise, Michigan, July 21, 1950.

From the Department of Physics, Wayne University.

Uranium, the element in which radioactivity was first observed, was soon found to emit three different types of particles: *alpha, beta* and *gamma* "rays." Briefly, the alpha particle is the nucleus of a helium atom (a particle composed of two neutrons and two protons), the beta particle is an ordinary electron, and the gamma ray is similar to x-ray and has the same properties as x-rays of equivalent energy. The alpha and beta rays are material particles and have relatively low penetrating ability. The gamma rays are electromagnetic in nature and are highly penetrating.

It should be remembered that the emission of these particles or rays is called *radioactive decay,* and that the rate at which it takes place is measured by the *half-life* of the radioactive element—that is, the time necessary for one-half the atoms in a given quantity of the substance to disintegrate and undergo these nuclear changes.

A most important property of radioactivity is that it is an exothermic reaction, that is, energy is released by the reaction. The source of this energy is explained by Einstein's formula relating mass and energy, $E = mc^2$, where c is the velocity of light, m is mass and E is the energy resulting when the mass is converted into energy. If we should weigh the nucleus and the emitted particles formed by a radioactive decay, we would find that their combined weight is less than the weight of the original nucleus. The difference in mass has been converted into energy. Since a little mass produces an enormous amount of energy (1 Gm. = 25,000,000 kilowatt hours), it would be desirable indeed to harness the process commercially by controlling the reaction rate of the process. However, radioactivity proceeds at a rate which cannot be influenced by any means now available to scientists.

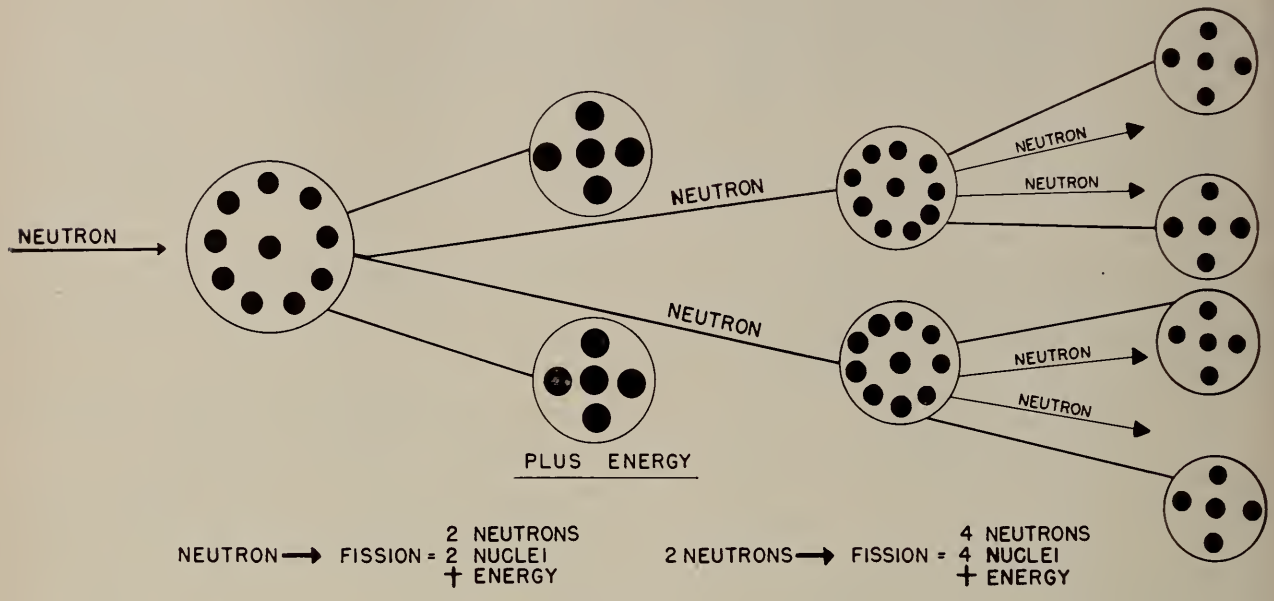


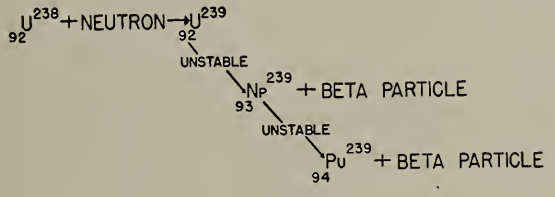
Fig. 2

The foundation for the development of the atomic bomb was the discovery, in 1932, of the neutron, the uncharged nuclear particle. This particle was identified by Chadwick, in England. The fact that it has no charge makes it very penetrating and is the source of its importance in nuclear change. Irene Curie and Frederick Joliot in 1933 found that radioactivity could be produced "artificially" in ordinarily stable elements. They observed that bombarding the lighter elements, such as aluminum, with neutrons induced emission of beta particles. For example, aluminum, element 13, is converted by neutron bombardment into silicon, element 14. The Italian physicist, Fermi, and his co-workers in 1934 experimented with the bombardment of uranium with slow neutrons (neutrons whose velocity had been reduced by passing them through certain light substances). They discovered four new beta ray activities. It was at first believed that these beta activities represented conversion of element 92 into a transuranium element, number 93. But in 1939 Hahn and his associates in Berlin discovered that bombardment of uranium produced isotopes of barium, cerium and lanthanum by chemical separation. From this work came the hypothesis that

instead of simply undergoing the expected radioactive decay, some of the uranium nuclei had split into two approximately equal halves, with an accompanying release of energy. Finally, in 1940, American workers demonstrated that it was the nucleus of uranium 235, rather than uranium 238, that underwent this splitting, or *fission,* when bombarded by slow neutrons.

The possibility of atomic energy and explosive weapons inherent in the fission process was quickly recognized by nuclear scientists. The reasons are: (1) a large amount of energy, much greater than that of normal radioactivity, is released in the fission process; (2) fission can be initiated by slow (*i.e.,* low energy) neutrons; (3) the process is essentially instantaneous; and (4) one to three neutrons are released in each fission. These fission neutrons can be used to produce fission in still other U^{235} nuclei, thus making possible a chain reaction in sufficiently pure U^{235} (Fig. 2).

When the U^{238} nucleus captures a neutron, it undergoes two successive beta-ray emissions, to form plutonium, element 94, which is also fissionable by slow neutrons.



A fast chain reaction (explosion) will occur spontaneously when sufficient U^{235} or Pu^{239} is brought together. This "sufficient" quantity is termed the *critical mass.* If the mass is subcritical, any neutrons produced by fission tend to escape through the surface of the material instead of producing fission of other atoms and so sustaining the reaction. In order to construct a successful atomic bomb, it was necessary to devise a method for bringing together very rapidly at exactly the desired time a critical amount of U^{235} or Pu^{239}, initiating a chain reaction with the consequent liberation of tremendous energy—the atomic explosion, accompanied by the same blinding flash which lit the New Mexico desert in July, 1945, and followed by the same mushroom-shaped cloud which hung over the stricken cities of Nagasaki and Hiroshima when man first loosed this powerful weapon.

The energy released by an atomic bomb may be classed under three headings; (1) blast, (2) thermal energy and (3) radioactivity.

1. The blast energy (about 75 per cent of the total energy) produces a shock wave of high intensity and of long duration. The long duration of the shock wave is in marked contrast to that produced by a chemical explosive, and greatly increases its destructive power. The shock wave is "pushing," rather than just "slapping" an object in its path.

2. The extremely high temperature of the atomic fire ball produced by the explosion leads to the emission of thermal energy in the form of infra-red, visible and ultra-violet light. Depending on distance, objects may be ignited or charred and personnel may suffer burns of varying degree. However, the thermal energy has little penetrating ability and consequently produces a surface effect so that only exposed skin is seriously affected.

3. The radioactivity has three components in order of their increasing range: a shower of free neutrons, a burst of gamma rays, and continuing beta and gamma activity in the fission fragments themselves. The neutron shower is of relatively short range, and for an air burst at 2,000 feet, just barely reaches the ground. In an air burst, the fission fragments are carried upward with the rising cloud and heated air and are subsequently so widely scattered as to be of no danger. However, the initial burst of gamma rays is of sufficient intensity and penetrating ability to cause many cases of radiation sickness.

An underwater burst is unique in that the water absorbs most of the thermal energy and many of the gamma rays, and at the same time traps the highly radioactive fission fragments. Detonation near the surface of the ground (say 500 feet or less) produces a shallow radioactive crater, but reduces the over-all area of effectiveness. No information is available on sub-surface explosion. To achieve the maximum area of destruction, an air burst at an altitude of about 2,000 feet is indicated.

An atomic explosion over a large city produces large numbers of casualties in a very short time. The medical effects of the bomb may be roughly divided into three categories: (1) blast injury, (2) burn injury, and (3) radiation injury. The injuries from blast are mostly indirect, resulting from collapsing buildings, flying glass and other debris. Burns are from two sources: flash from the bomb itself and fires from objects ignited by the

explosion. As the effects of radiation are mostly delayed, radiation sickness does not become serious for a period varying from hours to weeks, depending on the amount of exposure. The exact number of casualties at Hiroshima and Nagasaki is unknown. It has been estimated that 70,000 to 80,000 died at Hiroshima and about 40,000 at Nagasaki. The number of non-fatal casualties doubtless exceeded the deaths. It should be noted that the shortage of medical personnel and supplies, and the long delay in the arrival of outside help were responsible for many deaths. The percentage of deaths due to radiation is estimated at 15 per cent. Adequate supplies of antibiotics and blood would doubtless have considerably reduced this percentage.

Material destruction by the atomic bomb is also of great importance. Medical facilities, fire-fighting equipment, communication and transportation systems, one and all are partially or wholly destroyed. Breaks in water mains reduce the water pressure, rendering the remaining fire-fighting equipment useless. Broken gas mains and short circuits start numerous fires. These, fanned by the wind caused by the rising cloud, immediately begin to devour the devastated area, including those victims who are trapped in the wreckage.

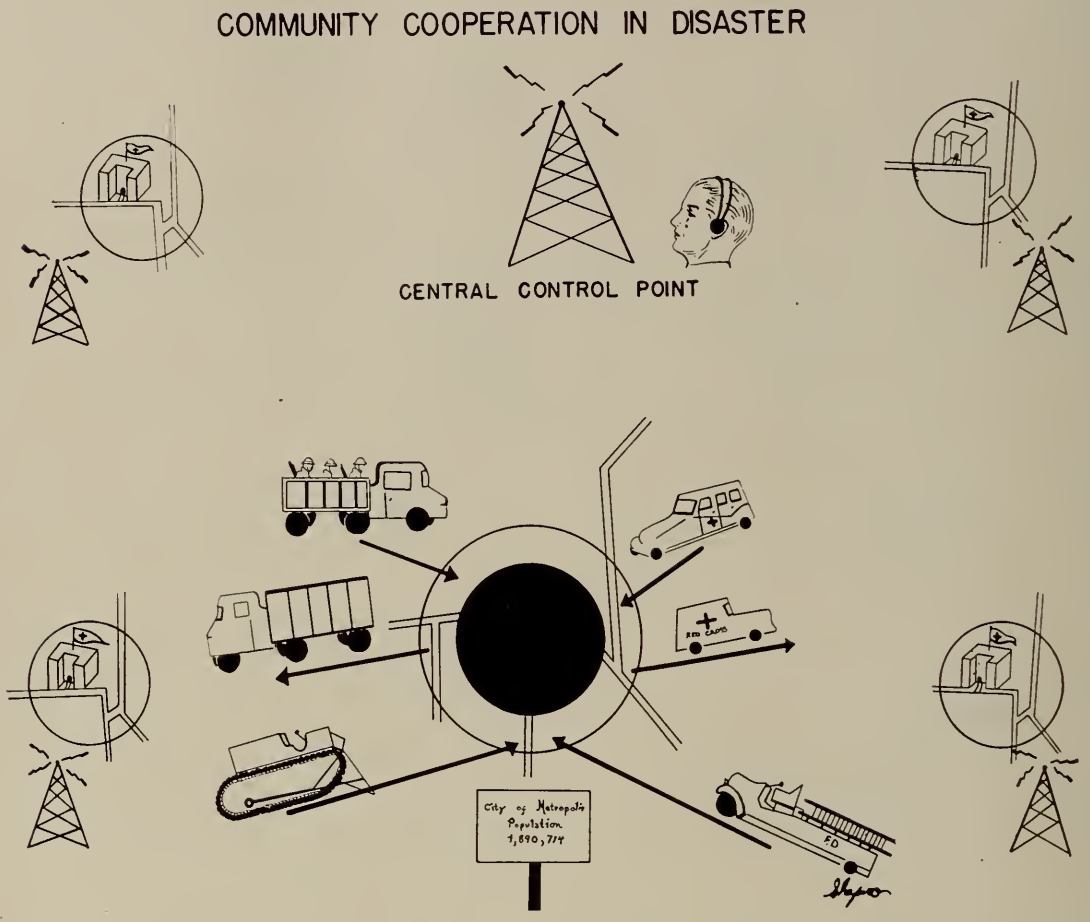


Fig. 3

The problem of reducing the material damage of an atomic explosion is very expensive, involving as it does decentralization of the target. On the other hand, a few minutes of warning could reduce the number of casualties to one-half or less. Since burn casualties alone need so much care, even a little protection would simplify this problem considerably.

The experience of Hiroshima and Nagasaki would seem to indicate that aid to the stricken area must come from neighboring communities (Fig. 3). The response of the general public in and near the target area would be of decisive importance. Emphasis should be laid upon training for action and

(Continued on Page 261)

Instrumentation

By K. E. Corrigan, Ph.D.

Detroit, Michigan

THE PROBLEM of instrumentation in preparation for atomic bomb disaster can be analyzed in terms of the types of radiation to be expected. This, in turn, is strictly a matter of (1) the nature of the bomb and (2) the conditions under which it can be used.

Since the air burst is the most destructive, it is the most probable and, if it occurs, will give rise to two radiation problems. The first of these is direct exposure of casualties to gamma radiation and neutrons. The second will be possible contamination with radioactive residues.

The source of the primary radiations will be the explosion cloud itself and the total duration in any significant intensity should not be over a period of more than one to three minutes. The intensity of the gamma radiation will fall off inversely as the square of the distance, and intensities that will cause serious physiological damage are actually not to be expected beyond the range of almost total blast and heat damage. Within a limited area around the epicenter of the bomb, the intensity may be very high and casualties having a combination of immediate injuries from blast and fire, coupled with latent injuries from radiation, are to be expected. There may be a few cases where persons caught in the area of intense destruction will not show immediate physical injuries and will later show serious radiation injuries, but this type of casualty will be the exception rather than the rule. This, of course, is due to the well-known phenomena of reflection and "skips" by shock waves in all disastrous explosions, coupled with the fact that very light structures, such as a wooden partition, may be adequate protection from the flash burns and will have only negligible effect on the penetrating radiations.

The radiation from the explosion itself will be entirely transitory, like the radiation from an x-ray tube which is turned on and off. The measurements of this radiation, therefore, are something that must be planned well in advance. These measurements will have a considerable value from a number of scientific and, possibly, military points of view but will be of relatively little interest to the physicians responsible for the care of casualties. In any case, due to the intensity, the unpredictability, the transitory nature and the relative minor significance that this radiation has as a casualty producer, the measurement of this radiation will have to be in the hands of authorities other than the medical groups whose primary interest is the care of casualties.

So far as our immediate interest in the primary radiation from the explosion is concerned, it will only be necessary to know how far a casualty was from the epicenter at the time of explosion to estimate the maximum dose that he may have received. If he has had any significant protection, such as a concrete wall between himself and the actual explosion, the dosage will always be less than the estimated exposure for the distance, and the actual exposure can be evaluated on the basis of the usual hematological and other physiological observations. This will probably be adequate and, in any case, unless the population can be supplied with personnel monitoring devices described below, will be the best compromise obtainable.

From the point of view of our committee, and considering that we live in Michigan, exposure due to residual radioactivity will be a much more critical problem, and it is with this form of radiation exposure that our instrumentation program must deal. In the case of an air burst of maximum efficiency, the residual contamination to be expected will be very low and may be negligible.

Heavy contamination could possibly occur in one of four ways:

1. A maximum efficiency air burst. This possibility would depend upon meteorological conditions and could only result from heavy precipitation of rain from the cloud itself. Such precipitation could occur at a considerable distance from the point of explosion and, while the dense contamination from this mechanism is not too likely to occur, it is a possibility that must not be overlooked.

2. A water burst, which is a good possibility at a harbor city or any great center of water transportation. This type of burst would result in the precipitation of a large quantity of contaminated water in the immediate surroundings and an area near the harbor might be very densely contaminated.

3. A ground burst or an air burst at less than the intended altitude.

4. The possibility of a partial failure of the bomb mechanism, resulting in partial fission with vaporization of the bomb fuel without production of intense heat which would normally carry the



Fig. 1. Ionization chamber for monitoring purposes, "Cutie Pie." (Courtesy of Radioactive Products, Inc.)

fission products and bomb residues upward into the stratosphere.

In any one of these possibilities, two types of residual contamination will exist in addition to some primary exposure of the type already discussed. One of these would be a large quantity of the short-lived radioactive isotopes which result from fission and the other would be a residue of very long-lived alpha particle emitters. In the case of a relatively complete explosion, the short-lived products would be the major problem and, in the case of a relatively poor explosion, the long-lived residues would predominate.

From the foregoing considerations it will be seen that two general classes of instruments will be needed. These will be:

1. Detection instruments which operate rapidly. While giving only qualitative, or semi-quantitative measurements, they will serve to outline areas of contamination on the ground or building, and also serve to detect any significant contamination which may occur on the clothing or bodies of casualties as the result of radioactive water or dust. These must be portable and ready for use in the field.

2. Measuring instruments which give quantitative measurements of radioactivity and also evaluate the type of radioactive material detected. In general, these will be larger, heavier, power-operated instruments and will be located in control laboratories.

The short-lived isotopes which may give intense exposure for short periods of time in areas of heavy contamination are mainly gamma and beta emitters, while the long-lived isotopes are mainly alpha emitters. Since these radiations are not equally well detected by all instruments, an assortment of detection and measuring devices intended for different uses are necessary. For example, a rescue crew dispatched into an area which may be contaminated will be concerned primarily with gamma ray exposure. The possibility of the existence of alpha emitters in the same area should be recognized to the extent of providing protective clothing, footgear, gloves and masks. Since no protective clothing can possibly prevent the exposure to gamma rays, which are exactly like high voltage x-rays in nature, it will be necessary to provide the rescue crew with (1) an exposure meter of a type that can be used to measure their tolerance time in the general area, and (2) individual devices for measuring accumulated exposure.

A measuring device suitable for use by a rescue crew is illustrated in Figure 1. The device consists of a large-volume ionization chamber which is hooked to an electronic amplifying circuit and gives a direct reading of radiation intensity. It operates from self-contained batteries and is completely portable. There are many such devices but all of them have the same fundamental characteristics. In general, the instrument is semi-quantitative for gamma rays and, when used properly, is highly sensitive to beta particles. It gives an instantaneous reading of intensity and, therefore, can be used as a guide. A trained monitor, using this instrument, can limit the working time of a rescue crew in a general radiation field so that their own tolerance limit of exposure is not exceeded. Each individual on the team, however, should have a device to show his personal accumulated dose.

Figure 2 illustrates one type of personnel meter. This consists of a small ionization chamber similar to a fountain pen which can be worn in the pocket and will indicate the total amount of gamma radiation to which an individual has been exposed. There are also various forms of this instrument,



Fig. 2. Fountain pen ionization chamber for personnel protection, "Minometer." (Courtesy of The Victoreen Instrument Company)



Fig. 3. Homemade film badges for personnel monitoring. Commercial 0.010-inch lead foil is approximately 0.25 mm. thick. Method of making and attaching step-wedge is shown.

some of which can be read directly. Others, like the one illustrated, must be returned to a central point where the charging and reading instrument is available.

Other types of equipment which can indicate total body exposure to gamma rays include film badges of various sorts, and numerous devices consisting of a small crystal which discolors under the influence of radiation, or tubes containing organic chemicals which are decomposed by radiation, again giving rise to a color change or an opacity. Fundamentally, these devices are as old as the science of radiology itself, color pastilles having been one of the first methods of measuring radiation dosage, and liquid chemicals, such as Eder's solution, having been very popular for high voltage radiation measurements twenty years ago. These ideas have been revived, and modern chemical and technological improvements have made many of them practical. In general, quantitative instruments of these types are not yet available in quantity but it is possible that they will be available in the near future.

The devices which depend on photographic effect for measuring total body exposure consist, at best, of badges which have been developed by the Atomic Energy Commission and which contain two films, one quite sensitive to radiation and the other quite insensitive with an overlap of sensitivity between the two. With these under proper conditions, very good evaluation of exposure to both gamma rays and neutrons may be obtained. It should never be forgotten that the simple arrangement of a dental x-ray film with a metallic marker or, if possible, a step-wedge of lead foil taped to its surface, is a highly satisfactory device for measuring total body exposure, and is very generally available (Fig. 3). All of the devices depending upon photographic or x-ray film have one limitation in that the films must be returned to a central point where they are developed and compared to standards in order to evaluate the dosage. The exposure and development of the standards themselves are a specialized technique.

At the present time efforts are being made to take advantage of two newer methods in commercial photography, (1) the direct reversal film which turns light instead of dark with exposure, and (2) the use of self-contained pods of developing and fixing solution. Film badges incorporating these improvements can be developed and read immediately in the field, or at any field hospital without returning to the central control point. This item, again, is not yet generally available but may be in the near future and will offer a distinct advantage for accurate personnel monitoring.

It might seem at first glance that the entire population, or a statistical sample of it, should be supplied with these monitoring devices. There would be a distinct advantage in that a reliable evaluation of the radiation exposure could be obtained and taken into consideration along with other medical factors in the care of a living casualty. Also, a relatively accurate evaluation of the primary radiation exposure from the bomb itself could be obtained from these devices recovered

from casualties, both living and dead. At the present time this is not practical, since all of the immediately available monitoring instruments have a limited useful life under ordinary conditions.



Fig. 4. Portable battery-operated counter in use for monitoring a surface.



Fig. 5. Alpha particle survey meter. (Courtesy of The Victoreen Instrument Company.)

Every possible effort should be made, however, to insure that all members of rescue teams, ambulance crews and field hospital groups will be supplied with personnel monitoring equipment of one or more of the types described, at the time it is needed.

Instrumentation for sorting casualties and checking contamination of clothing and skin will also be essential. Of the instruments available at this time the most useful for this purpose will be the portable battery-operated Geiger-Mueller counter. The fission products with which casualties are most likely to be contaminated will contain high percentages of energetic beta and gamma emitters of relatively short-life and these are best detected by the type of instrumnt shown in Figure 4. This instrument is provided with a thin-walled counter tube which will detect beta particles, and a brass filter which can be slipped on or off of the sensitive area of the tube to check gamma emitters. In this way, strong surface contaminations can be detected quickly and the efficacy of decontamination methods for personnel can be evaluated. The instrument is of some use in area monitoring of the type described for the first ionization instrument. Like all Geiger-Mueller counters, this instrument is very much more sensitive than the ionization chamber but its sensitivity to gamma rays depends too seriously on the energy of the radiation being measured. Consequently it makes an excellent instrument for detection and evaluation of surface contamination but not for quantitative evaluation of total body exposure.

Instruments of this type will be needed primarily in receiving stations and field hospitals. In addition to the counters another type of ionization instrument suitable for detection of alpha emitters on the skin and other surfaces will be needed in such installations for the protection of personnel. Portable alpha particle detectors are limited by the fact that the very energetic alpha particles, due to their great mass (4 atomic mass units, or 7440 times the mass of the beta particle) have an extremely short range in air and are absorbed by very thin membranes. Practically all of them, for example, are absorbed by the outermost layer of the epidermis. Portable alpha particle detectors differ from the instruments already described in that they must employ either an open ionization chamber or one closed with an extremely fragile membrane. They are, therefore, more delicate and more difficult to handle (Fig. 5).

The instruments described so far will, in general, cover the immediate problems arising from an explosion of any of the ordinary types. Until it can be proven otherwise, we must also assume and prepare for the eventuality of heavy contamination with radioactive materials which are primarily alpha emitters. These will not cause the immediate and spectacular casualties that dense

contamination with the gamma and beta emitters will produce, but the production of bone malignancy by ingested isotopes of the radium family, the production of malignant change in the liver by the



Fig. 6. Geiger counter equipment for precision measurements (Harper Hospital).

radioactivity from thorium and the production of lung carcinoma by radon are too well known to the medical profession to need detailed discussion.

Heavy contamination with these isotopes could arise in two ways. The partial failure of a bomb has already been mentioned and it must also be remembered that any organization capable of producing a fission bomb will have available large quantities of long-lived radioactive by-products. The use of these by-products as a weapon is quite feasible and the choice of this weapon in preference to some other supplemental attack, such as fire bombs, would be entirely a question of military efficiency, and a choice entirely in the hands of the enemy. As a general rule, long-lived isotopes emit particles of relatively low energy and are, therefore, hard to detect. The deposition of these long-lived contaminants on the ground, in the air, on the surfaces of food containers and in the water could constitute an extremely serious hazard and one hard to cope with.

The measurement of these contaminants would be a laboratory problem, and sensitive counters of the type illustrated in Figure 6 would be called upon for this purpose. The laboratories employing this type of equipment are already in existence, but probably additional laboratories widely dispersed from probable targets should be planned.

We have endeavored in this presentation to show the instruments available at the present time in relation to the problems for which they are suitable. Two general problems still exist: (1) all of the instruments mentioned are extremely scarce at the present time, and (2) aside from the film monitors, they are all quite expensive. The portable instruments illustrated average about $250 each. Efforts are being made to develop instruments having the same characteristics on a mass production basis, and at a low cost. When these new instruments appear, however, they will not be significantly different in operation or application from their prototypes described here.

MSMS

DEVELOPMENT, USE AND EFFECTS OF ATOMIC ENERGY

(Continued from Page 256)

behavior in the afflicted area in which a person happens to be at the time. Education and organization will reduce panic and confusion and conserve lives.

In summary, the atomic bomb is essentially a greatly enlarged conventional bomb, with the addition of a nuisance factor, radiation. Its effectiveness is due mainly to its ability to produce so great damage in so short a time. As in any disaster, prompt action and co-ordinated effort, along with a few minutes' warning, constitute at least half of the battle.

Suggested Reading

Hecht, Selig: Explaining the Atom. New York: Prentice-Hall.

Lapp and Andrews: Nuclear Radiation Physics. New York: Viking Press.

Cork: Radioactivity and Nuclear Physics. New York: D. Van Nostrand Co.

U. S. Government: The Effects of Atomic Weapons. U. S. Government Printing Office, Washington, 25, D. C.

OPERATING COST OF HOSPITALS UP

A survey conducted by the Detroit Area Hospital Council revealed that hospital operating costs here are rising sharply.

"The institutions began to feel the impact of spiraling prices right after the Korean war opened," declared John M. Jenkins, president.

"Our study showed that the cost of everything—food, drugs, supplies and payrolls—have shot up," the official added.

In the past several months, he said, the inflationary trend became sharper.

"The effects of nominal rises in charges made by the hospitals," Jenkins explained, "already appear to have been wiped out."

Increased cost of laundering linens, one of the most important items, was held out as a striking example of the change.

This has risen 36.5 per cent. Salaries alone jumped 24.5 per cent in hospital laundries.

The Detroit Area Council includes the majority of hospitals in the seven counties of Southeastern Michigan. —*Detroit Free Press,* January 28, 1951.

Pathologic Changes Produced by the Radiation Effects of the Atomic Bomb

By Osborne A. Brines, M.D.

Detroit, Michigan

THIS DISCUSSION will concern damage to tissue cells produced by the radiation emitted during detonation of the atomic bomb and will be based on animal experimentation and the clinical and autopsy findings following the bombing of Hiroshima and Nagasaki. We are accustomed to consider the injurious effects of irradiation in their application to the treatment of cancer with large doses being applied to small areas. Thousands of roentgens may be given to a small confined region of the body without causing serious injury except to the exposed area. However, the effects of the atomic bomb involve total body irradiation in which a lethal dose may be only one-tenth or one-twentieth of a therapeutic dose often employed in the treatment of cancer.

The type of tissue damage is the same regardless of the form of ionizing radiations to which the cells are exposed—roentgen rays, gamma rays, alpha and beta particles, neutrons—all having essentially the same qualitative effect. It is well known that certain tumor cells are more susceptible to damage by irradiation than normal cells; in the same comparative manner normal tissue cells vary in degree of radiosensitivity. Thus, lymphocytes, granulocytes, epithelial cells, bone marrow cells and endothelial cells are most easily damaged by radiant energy.

Many theories have been advanced to explain injury from ionization, but the mechanism is still unknown. The immediate effects of irradiation on cells consist chiefly of suppression of mitotic activity, nuclear fragmentation and swelling and vacuolation of the cytoplasm. Depending on the size of the dose, a varying number of cells will be completely destroyed; others may be temporarily damaged but may recover; others may resist damage entirely. Undamaged and recovered cells proliferate and provide the means of repair and regeneration of the damaged tissue. If the percentage of completely destroyed cells of an organ or an area is high, the function of that part will be greatly impaired. Should that organ be the bone marrow, hematopoiesis and leukopoiesis will be depressed; should it be lymphoid tissue or the reticulo-endothelial system, defense against infection may be impaired. If the cells lining the intestine are destroyed, an important barrier against infection is removed. The organs most significantly damaged by the radiation from the atomic bomb will be the skin, intestines, gonads and hemopoietic tissues.

Those exposed to massive doses of radiation, probably within 1,000 yards of the epicenter, but not otherwise injured, may develop the syndrome of radiation sickness consisting of nausea and vomiting, anorexia, malaise, diarrhea, thirst, fever and coma, with death from shock occurring in the first or second week. Those at a somewhat greater distance may have milder symptoms but may die between the second and eighth week. The onset of these symptoms may be within an hour; occasionally the onset is delayed for days or weeks. Among the Japanese there were but rare instances of severe radiation injuries developing in people who were more than 1,500 yards beyond the epicenter.

The skin and its appendages will receive the maximum dose of unfiltered radiation. In previous experience it has been difficult to distinguish between skin damage due to burns and that due to radiation. At Nagasaki and Hiroshima epilation occurred two weeks after the atomic bombing and affected males and females alike. This was due to destroyed function of the cells of hair follicles.

Early intestinal changes appear to be initiated by direct damage to the surface epithelium by ionizing radiations. Infection then complicates the picture, ulceration and hemorrhage ensue and it is difficult to evaluate leukopenia as a cause of these ulcerations. The large intestine is most severely involved. The gross pathologic picture simulates that of bacillary dysentery. Septicemia may result.

In the testis profound histologic changes have been found to occur chiefly in the germinal epithelium, suppressing, at least temporarily, spermatogenesis. Sertoli cells are partially preserved and from these the germinal epithelium regenerates. The Leydig cells are apparently unaffected. The relationship of this change to permanent male infertility has not been finally established. The ovary is less susceptible to damage than the testis, and while menstrual irregularity was en-

countered frequently in Japanese women following the bombings, permanent sterility was apparently rare.

The spleen and lymph nodes undergo hypoplasia of the lymphoid tissue and the malpighian corpuscles and lymph follicles disappear, leaving an almost empty reticular stroma. This phase of exhaustion is followed by proliferation of atypical cells often resulting in hypertrophy of the lymphoid tissue. The ability to regenerate is probably due to some of the large reticulum cells in the germinal centers having escaped destruction.

The peripheral blood picture changes abruptly. There may be a severe granulopenia and lymphopenia within a few hours due to the direct destruction of these highly radiosensitive cells. The leukopenia is an important laboratory feature because it parallels the severity of the damage and reflects the prognosis.

The cells of the bone marrow, particularly the immature granulocytes and erythrogenic forms, are radiosensitive. The reticulo-endothelial system is, fortunately, comparatively radioresistant, and from these spared precursor cells regeneration usually occurs quite promptly. Following heavy exposure, hypoplasia may result in a totally aplastic marrow which grossly appears pale and translucent. Aplastic anemia and thrombocytopenia then accompany the leukopenia. Purpuric manifestations may result in petechial and ecchymotic hemorrhages and may account for mucosal hemorrhages in the gastrointestinal and urinary tracts. The anemia may persist after the marrow has become hyperplastic, suggesting a maturation defect. In a few instances the aplastic anemia is persistent and fatal.

Endothelial cells are readily damaged. The intima of vessels becomes swollen, producing narrowing and often leading to thrombosis. Increased capillary fragility is likewise produced. The large vessel changes might conceivably result in the production of small infarcts, but none was reported in autopsy protocols. The capillary bleeding would contribute measurably to the anemia.

Other organs have been found to be damaged but it is difficult to distinguish damage due entirely or primarily to irradiation from leukopenic necrosis. These organs include the pharynx, esophagus and adrenal cortex; the degeneration and atrophy of the latter is important although regeneration is probably prompt. Necrotizing pneumonia frequently develops but, like ulcerations of the oropharynx and alimentary tract, is probably dependent on agranulocytosis as a causative agent. The epiphyseal region of infants and children is particularly reactive to radiation. In the eye, radioconjunctivitis occurs with moderate doses. Lenticular opacity occurs in young eye tissues with moderate doses but mature lenticular structures are not readily damaged.

Conclusions

Air burst atomic bombs may produce lethal effects over an area of less than two square miles and measurable effects over an area of three square miles as a result of the gamma radiation emitted. Death may occur promptly following exposure of all or a large portion of the body surface to more than a full erythema dose of irradiation. Such deaths are probably attributable to the direct effect of irradiation. Removal of the barriers against bacteria and depression of the resistance of the host may result in generalized infection. Anemia in these patients may be due to loss of the erythropoietic function of the marrow, hemorrhage from ulceration, direct damage to capillaries, disturbance of the clotting mechanism causing purpuric bleeding, and dietary deficiency due to anorexia.

Fortunately, ionizing radiation injuries are numerically the least important of the atomic bomb casualties. In nonfatal cases these lesions tend to be self-limited and self-healing, recovery depending on proliferation and repair. Therefore it is important to protect the patient against the secondary effects of irradiation and to utilize all supportive measures possible. Antibiotics and chemotherapeutic agents will be necessary to combat infection. Whole blood and plasma will be necessary to replace the red cell mass and the blood volume. Malnutrition, protein deficiency and avitaminosis will follow nausea and anorexia due to intestinal lesions and must be vigorously guarded against.

Late effects of irradiation are unpredictable but speculation has doubtless led to unfounded fears. While it is true that exposure to radiation has been cancerogenic in some instances, e.g., leukemia, bone sarcoma, skin cancer and carcinoma of the bronchus, it must be remembered that continuous exposure to small doses of these agents for a considerable period was necessary.

The effect which exposure to total body irradia-

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Blood Procurement in Time of Disaster

By D. H. Kaump, M.D.
Detroit, Michigan
and
J. A. Kasper, M.D.
Grosse Pointe, Michigan

THE PROCUREMENT of blood in the event of a major disaster, such as would be caused by atomic bombing, entails two considerations: first, an estimate of what the blood needs might be, and second, the actual mechanics of procurement.

In an attempt to determine how much blood should be made available when an atomic bomb explodes over a given target area, knowledge concerning the effectiveness of the bomb is highly important. Experience with this type of disaster is extremely meager, and for the most part is limited to that which pertains to the two bombs dropped over Japan and the subsequent experimental bombings. It is now believed to be determinable by the area on which the bomb will fall and by the height above or below the ground level at which it will explode. If the explosion were to occur at the optimum height of approximately 2,000 feet above ground level, over the metropolitan area of an average American city, and in a surprise daylight attack, the number of casualties could be estimated to be approximately 100,000 to 120,000. With adequate warning and civil defense preparation, this number would probably be reduced by approximately one-half. Accordingly, then, our estimate of the blood needs should be based on the probable total of approximately 50,000 casualties, assuming that only one bomb would be exploded at the optimum height of 2,000 feet above ground level. It may be assumed further that of the 50,000 casualties, approximately 20,000 would be killed immediately and the surviving 30,000 would require medical attention.

For those persons injured, the medical effects of the atomic bomb may be roughly divided into three categories: (1) trauma, (2) burns, and (3) radiation injury. It is conceivable that many of the casualties will suffer more than one type of the injuries listed.

Approximately 50 per cent of all surviving casualties will have mechanical injuries produced by the blast force of the explosion or by trauma from flying debris. For those so injured, blood and plasma, or blood substitutes, will be needed, principally for the immediate treatment of shock and to replace the blood lost by hemorrhage from lacerations and following amputations. Whole blood transfusions will also be indicated later to shorten convalescence and combat anemia incident to possible infection.

Sixty per cent of the surviving casualties will suffer varying degrees of burns, either as flash burns, the direct result of the action of the radiant energy, or flame burns from burning clothing and from coming in contact with other burning objects. The latter will probably be relatively rare. This group of patients will require blood, not only to combat shock, but also as supportive therapy, extending over periods of one to several weeks.

It is estimated that only approximately 15 per cent of the casualties will suffer chiefly from radiation injuries. Radiation injury to tissues is by a process of ionization, known as ionizing radiation. This process may affect the body as a whole, but more especially the skin, gastrointestinal tract, testes, ovaries, and the hematopoietic system. Whole blood will probably not be immediately needed for this group of injured. Those persons who develop shock after massive doses of irradiation will have poor prospects for recovery. For a great number of those exposed to moderate to lethal doses of irradiation, and for those subjected to lesser exposures, whole blood transfusions given until the bone marrow regains its power to regenerate blood cells will undoubtedly prove to be life-saving measures.

The number of units of blood needed per week may be estimated to be equal to the number of casualties surviving on the first day after the attack. Thus the surviving 30,000 casualties will probably need approximately 30,000 units of blood during each of the succeeding four weeks. At the outset, this product will in all probability be used in the treatment of mechanical and burn injuries, and during the latter part of the four-week period, the individuals affected by the ionizing radiations will require progressively increasing amounts.

Whole blood cannot be stored for more than

Dr. Kaump is Director of Laboratories, Providence Hospital, Detroit.

Dr. Kasper is Director of Laboratories, Bon Secours Hospital, Grosse Pointe.

three weeks because of the deterioration of the erythrocytes. Therefore, it would be highly desirable to stockpile plasma, blood derivatives and blood substitutes which can be stored for much longer periods. These substances may play a useful role in the initial supportive treatment if used according to certain specific indications. However, their usefulness may be limited for they lack oxygen-carrying power. Moreover, their value has not yet been fully determined, because they have not been widely used by the medical profession in recent times. While it is difficult to foresee how effective blood substitutes, such as the recently proposed polyoxygelatin solution and electrolyte solutions may prove to be, they should nevertheless be stockpiled in quantities at least equal to the total units of whole blood.

At the present time, the normal procurement of whole blood in the Detroit area is in the neighborhood of 1,500 units per week. Of this number, about 1,200 units are for local use and 300 units are being supplied to the armed services. These same estimates might well apply to any other similar area. In an emergency when approximately 30,000 units of blood per week would be needed, the present rate of procurement should be increased at least twentyfold.

In time of peace, the normal blood needs are met through donations by volunteer and professional donors. Most of the hospitals in this state maintain individual blood banks. In some areas community blood banks as well as the State Department of Health provide additional facilities for the procurement and distribution of blood. Community banks are usually those which are maintained under the auspices and through financial assistance of the American Red Cross. Regional blood centers serving one or more counties, with the approval of County Medical Societies, are of this type. The donations to such banks are by volunteer donors who respond to the appeals of the Red Cross to perform a civic duty without any definite expectation of recompense. This method of blood procurement has proven most successful in small communities where the population is stable. On the other hand, in larger centers some inducements must be offered to stimulate donations to the community blood bank. The Detroit Regional Blood Center has found the credit system to be very helpful. Labor and fraternal organizations as well as church groups are permitted to establish credits by depositing units of blood numbering up to one hundred. These credits are then drawn upon when the blood is needed for transfusions of members of these organizations or their families. Replenishment of dwindling credits is accomplished by arranging for group procurements by means of mobile units from the Regional Center or by having the donors come to the Center directly. The State Department of Health blood program is carried on in a manner similar to that of the Red Cross Regional Centers, except that it is in relation to a county rather than an organizational group.

In an emergency, the civilian population is suddenly called upon to respond to an extraordinary demand for blood and plasma. If facilities for the procurement of such quantities are established beforehand, the problem is not a difficult one to solve. Usually, the existing facilities such as those of hospital blood banks, the Red Cross, and the State Department of Health can be extended to cope with a moderately great emergency. However, a catastrophic situation of a magnitude as would develop after an atom bomb explosion would create a problem that is less easily solved. Therefore, it becomes necessary to make extensive preparations a long time in advance. The sudden demand, not for hundreds, but for thousands of units of blood, must be anticipated. To provide this product quickly, it is imperative that so-called universal donors become available in the shortest possible time after the explosion. It is for this reason that the extensive program of blood grouping advanced in this State is to be considered a sound procedure. The National Security Resources Board and the Federal Civil Defense Administration agree to the general principle of preparedness blood grouping when these projects are related to blood procurement and identification of group O donors. Potential donors will then be known according to their blood types and can be called upon when procurement of blood on a very large scale becomes a necessity.

In the early phases of a major disaster, the existing facilities for the collection and handling of whole blood would be taxed to the utmost, and it is probable that the stricken area could not supply over 2 per cent of its immediate needs. In view of the estimates here advanced, this would indeed be a negligible amount. In this phase, the stricken area would have to depend on surrounding areas

for assistance. During the second week of the disaster period, the facilities in the affected area probably could become so well organized that about 25 per cent of its needs would be procured locally, but still 75 per cent would have to come from other sources. By the fourth week, most of the needs might be met in the area itself.

To facilitate procurement on the scale implied by the estimates advanced, it is here proposed that teams be organized for service at designated stations. Each team should consist of three nurses, three nurses' aids, two technologists, and two clerks. Each team would then be able to procure and process whole blood at the rate of three units in approximately ten minutes. In a five-hour period, each team should be able to collect ninety flasks of blood, provided the donors are present and sufficient containers, glassware, typing sera and the necessary equipment are assembled at the designated stations. Each station would have to be planned to accommodate two teams at the same time. A physician would be required for each two teams. Working in five-hour shifts, three shifts a day, five days a week, the personnel numbering 180 nurses, 180 nurses' aids, 120 clerks, 120 technologists, and thirty physicians could be divided among ten stations. Under such an arrangement, the blood procurement would amount to 27,000 or more flasks per week.

Inasmuch as a period of training is desirable to acquaint the members of each blood procurement team with certain details of procedure, particularly the use of the equipment, courses should be organized. It would also be expedient to have pilot procurements arranged at regular intervals, in order that greater familiarity with the facilities might be gained, both by the personnel of each station and the public. The American Red Cross has been designated the agency through which advice and assistance might be obtained and already has extensive experience in the procurement of blood with mobile units and should be invited to participate in these experimental endeavors. Properly planned and regularly used, the designated casualty centers should serve to develop efficiency for the production of whole blood, plasma and other blood derivatives for some of the peacetime needs, and in the stockpiling for emergency use. These centers could also be utilized in the preparedness blood grouping project since each donor coming to the center would be typed and recorded.

On the basis of estimates, it will be necessary to stockpile approximately 150,000 blood collection and dispensing sets at strategic points throughout the state, preferably in those areas in which the greater numbers of potential donors normally reside. Plasma, blood derivatives and blood substitutes should likewise be stockpiled at such centers in quantities equal to or greater than the estimated requirement of whole blood. Consideration should be given to the orderly creation of the proposed centers. Each blood procurement team should be provided with six donor tables and three service tables. Adequate refrigerators or transportable refrigerated containers for storing the blood after procurement must also be assembled.

It would be inadvisable to simply acquire this equipment and store it. It should be used continuously, even if only at intervals. These intervals, however, must not be longer than four to six weeks for each center. Should a disaster occur, then the already established peacetime facilities could be readily supplemented, with greatly lessened confusion and on the scale desired.

In the first few days following a disaster routine blood grouping and cross matching might not be practicable if the immediate needs of the thousands of casualties are to be met. During this earliest period reliance would have to be placed on group O blood and possibly on blood substitutes. During this period, also, the donors identified beforehand would be called upon. It is even possible that, with continued practice as here proposed, the emergency centers might be able to provide the desired check blood grouping and cross matching services which are so important before transfusion. These procedures would be greatly speeded and simplified if previous preparedness typing of the donors had reduced to an insignificant number the AB, A, and B donors who might present themselves in time of emergency.

The other recommendation for improving and facilitating the large scale procurement of blood in time of a great emergency would be to develop an educational program. It should be so organized that everyone will be made cognizant of his responsibilities to participate in the endeavors for community protection and service. The need for knowing one's blood type should be stressed. The value of stockpiled plasma for men on the battlefield and for civilians in the target areas should be emphasized. The estimated emergency needs

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Medical Problems of Evacuation

By Arthur B. McGraw, M.D.
and
James E. Cole, M.D.
Detroit, Michigan

IN PREPARING this article an attempt has been made to apply it to the State of Michigan, and in particular its industrialized areas, but not from the particular point of view of any one area. Each reader, however, should view his reflections after reading from his *own* point of view—where he lives, where he does his work, whether an atomic bomb attack would find him in a target area, or safely at the periphery of a bombed area ready to help care for its casualties, or too far away to be of any early help.

The basic, prime and immediate problems facing thickly populated and industrialized targets of an atomic bomb attack will be to limit spread of destruction by secondary fires, appraise the kind and degrees of structural damage to various facilities, and to set about rendering the area first livable in the simplest terms for the uninjured of the population and then again industrially productive even at a greatly reduced level in the shortest possible time. Collective acceptance of this attitude by the citizens of a stricken area may well be the best antidote for the panic and chaos which is an enemy's dearest hope. Every personal wish and instinct must be subordinated to what will further the country's total war effort. Included in that subordination to perhaps terrible and ruthless degrees will be the handling of casualties.

Along with other *adult uninjured residents* every uninjured member of the medical profession should remain in the area and serve there to the best of his ability, and his training and skill will be best utilized in one of the following activities: (1) aid in the selection of casualties to be evacuated out of the area, (2) temporary care of severe injuries, (3) definitive care of minor injuries, (4) advice and authority in control of sanitation.

1. Of the above, the first will be by far the most difficult and important, for in terms of the total war effort it will be of paramount necessity to aid the salvage and prompt recovery of every injured person who can later resume his former or some other useful task. It will be essential that every uninjured doctor secure information at the earliest possible moment of (a) the epicenter of burst, and (b) whether or not any dangerous radioactivity will result from the type of burst and over what sector from the epicenter. As soon as he secures such information, he can determine with fair accuracy, (a) which of the area's hospitals may still be intact or useable, and (b) where, according to circumstances, he should strive to go in order to be of the most use. Since many doctors may well be among the dead or seriously injured, the community will have to be educated to accept the fact that surviving doctors will have to work where they can help clear the largest number of injured with a good chance of recovery, and not to expect that they will necessarily remain and try to care for casualties in their immediate vicinity. Crews of laymen will have to bear the burden of collection and transport of non-ambulatory injured to collecting stations for temporary care. Those will be located in appropriate buildings along the various channels for evacuation leading out of the area. They will have to be selected and designated in advance for each main highway leading out of an area, and used according to their availability after a bomb has burst.

2. It will be at such stations for temporary care that a doctor assigned to selection can perform his tasks most effectively. He alone will have the training to make rapid and reasonably accurate appraisals of the kind and nature of injuries and the prognosis for survival and rehabilitation. Those with good prognoses will best be moved at once to further existing or temporary emergency hospitals at the periphery or in nearby communities. Others with uncertain or poor prognoses or for whom lengthy transport would be extremely hazardous will be taken to existing hospitals within the attacked area or to buildings temporarily adapted for hospital use. It goes without saying that at these collecting stations there should if possible be one or more doctors and many trained volunteer laymen available for emergency care and nursing in addition to those doctors solely concerned with selection and distribution. Surviving local hospitals should be manned as quickly as possible by those of their staff who have not been designated to serve

From the Division of General Surgery, Henry Ford Hospital, and the Division of General Surgery, Highland Park General Hospital.

in temporary hospitals and should receive to their utmost capacity for care those seriously injured victims not fit for transport out of the area. It may even be advisable for these local hospitals to move every one of their current patients not in dire need of hospital care out into homes in their immediate neighborhood.

3. In order not to clutter the collecting stations and usable local hospitals with minor and ambulatory injuries, a large number of small buildings should be designated as first aid stations for care of minor injuries and manned by volunteer trained lay workers working under as much medical supervision as the number of surviving doctors permits.

4. The doctor's responsibilities in connection with sanitation in the event of an atomic bomb attack will be concerned mainly with water supply, with food, with disposal of human and other wastes, and with the detection of radioactive products of atomic fission. Water supply may be interfered with by contamination, by damage to the piping of dwellings, by fracture of mains and even destruction of a city's propulsive machinery. Extensive interference with water supply will entail breakdowns in facilities for disposal of excreta and other wastes, and primitive methods will have to be tolerated temporarily by rich and poor alike. Much food may spoil for lack of refrigeration and distribution of safe food may temporarily be badly disrupted. Furthermore, water, foodstuffs, utensils, buildings, and even the clothing and skin of individuals may become contaminated by radioactive fission products of the burst.

A pressing responsibility of doctors, and health officers is to alert public officials and producers of all kinds of medical and surgical supplies to the urgent necessity of stockpiling large quantities of these materials well on the periphery of large industrial concentrations in order that the large part of the city's supply of such necessities may not be destroyed or contaminated at the time of an atomic bomb explosion. Dependence on current supplies of nearby communities will not begin to meet the need. In addition to supply, the peripheral deployment of some facilities for emergency manufacture might well be considered.

In addition to doing everything in his power *after* an atomic bomb attack, every physician, whether his practice be urban or rural, general or specialized, should begin *now* to familiarize himself thoroughly with the most up-to-date and practical methods of handling burn cases in great numbers, the emergency treatment of fractures and compound injuries, the fundamentals of sanitation in the face of impaired normal facilities and in the kinds and severity of human injury caused by radiation or the absorption of various amounts of the different kinds of radioactive products released by atomic fission.

Though based on study and much thought about the duties and opportunities for physicians under atomic bomb attack, particularly as regards the value of their services in the evacuation of casualties from a bombed area, the above outline does not pretend to be either complete or authoritative. It is offered mainly to provoke serious interest, thought, criticism, and suggestion by any licensed practitioner in this state. Unlike Europe, the British Isles and Japan, the mainland of this country has never been subjected even to high explosive, let alone atomic, bombing. Such experience as the masses of our population have is thus far only by hearsay and such instruction as has recently become available. The problem of survival under and rehabilitation after an atomic bomb attack is exceedingly complicated, and planning has to be done with regard to the unpredictable combination of an immense number of variables. Only a group of plans that can achieve a few fundamental and commonly agreed aims by means of an exceedingly elastic and flexible adaptation of details in varying situations can hope for much success.

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RADIATION EFFECTS OF ATOMIC BOMB

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tion might have on fertility and child bearing, the length of the life span and the offspring of exposed individuals will require years of observance.

This discussion has been predicated on the assumption that an atomic bomb will be detonated several thousand feet in the air and that damage to personnel will be chiefly in the form of gamma rays. An underwater explosion involves a difference in physical qualities and distribution of the ionizing radiations. However, in addition to exposure to external irradiation, internal exposure to radiocontaminated food and water might become a hazard. It can easily be seen that much more experience and knowledge is necessary to complete our understanding of this subject.

Decontamination

By Leland E. Holly, M.D.
Muskegon, Michigan

IN ANY discussion of modern bombing, the possible occurrence of a certain amount of radioactive after-effect must be taken into consideration.

A high air burst, 1,800 to 2,000 feet above ground on a clear day with little wind, would in all probability produce no dangerous contamination even in the area immediately underneath the explosion. This was true in Japan. The reason for this lack of contamination is that the fission products formed in the detonation are carried upward in the atomic cloud and dispersed into the atmosphere. Within a matter of minutes those individuals who survive the blast and thermal effects could enter a bombed area with little fear of receiving harmful radiation. In an air burst, under adverse atmospheric conditions of fog, rain or high humidity (conditions simulating in some respects a low ground or underwater burst) harmful residual radiation might remain. This serves to emphasize the indispensable role of the meteorologist in the whole of the defense setup.

In a low ground and an underwater burst, surface radioactive contamination plays an even more important part. Contamination occurs not only in the immediate area of epicenter but in the "fall-out" area of the atomic cloud. The length of dangerous contamination depends upon the rate of decay of the radioactive products.

Decontamination Procedures

One of the primary purposes in any decontamination is to prevent internal absorption of radioactive material by personnel who may be forced to work in a bombed area. The question, then, of whether or not to actively attempt to decontaminate an object or an area depends upon (1) the particular necessity of having the object or area available, (2) the risk involved in the procedure, and (3) whether or not one can expect satisfactory decontamination if it is undertaken. While we can assume that after a certain time safe self-decontamination will occur, in cases of emergency personnel may have to enter the radioactive area though only for a few minutes per day or per week. In such instances there must be rotation of personnel. Most frequently, the contamination is located on the surface, notable exceptions being water contamination and the contamination of porous material. The maximum allowable exposure for continuous occupancy of an area must not exceed 0.3 roentgens per week.

Removal and disposal of a contaminated surface either by ground burial (Oak Ridge) or water burial (Berkeley) or possible burning is in some instances feasible. Care must be exercised in not re-contaminating other areas or objects. Wet sand blasting offers another satisfactory method for the removal of surface contamination, especially of the walls of buildings or ships. In some instances, much less drastic means may be employed, such as use of sandpaper, polishing pads, steel wool, et cetera.

Chemical procedures may also be applied. The chemicals must be available in large quantities, they must be inexpensive, non-toxic, non-corrosive, non-inflammable and readily disposable. Aqueous solutions are preferable since they can be handled easily and conveniently by standard fire-fighting equipment, sprinkling systems, et cetera.

In general, the chemical procedure is based either on merely wetting the surface, thereby producing a waste material of rather high activity but which is of easy disposal, or on flooding the surface and thus washing away the contaminating material. Each case presents its own peculiar problem. There is reason to believe that a body of water such as a river or lake will decontaminate itself quite readily due to the suspended material acting as an absorbing surface or by hydrolysis.

Painted or varnished surfaces may be cleaned with suitable chemical removers. Live steam and detergents likewise remove a small surface film and thus decontaminate the surface.

Dusts can be collected in suitable containers or arrestors, such as vacuum cleaner, et cetera, and disposed of as mentioned above.

Another method would be to change an insoluble radioactive substance to one that is soluble and thus be able to wash it away. Bear in mind, however, that changing the chemical composition of a radioactive substance *does not* alter its radioactivity, it only may make it amenable to manipulation. Among the decontaminating agents thus used are the detergents, Tide, Dreft, et cetera. Significantly, the addition of sodium bicarbonate

to a detergent will increase its decontaminating efficiency. Water alone is a poor decontaminant; it acts only as a diluent with little penetrating effect.

In these and any other methods of decontamination, we again wish to emphasize that this is a transferal of harmful radioactive material from a location dangerous to health to an area or location where it will cause no harm to life. We still must dispose of the material.

Human Decontamination

Human contamination in those surviving an atomic bomb will be largely confined to the exposed body surfaces and clothes.

The clothes one wears form a suitable barrier to most harmful material. This leaves the customarily exposed portions of the body—head, hands and part of the lower extremities—as surfaces which may become contaminated. Clothes should be removed and buried, with care being used not to contaminate the interior of some building or structure as well as one's own body.

Exposed surfaces, hair, face, body openings, hands, under fingernails, creases, et cetera, can be thoroughly cleansed with soap, water, household detergents such as Dreft, Tide, et cetera. A shower bath, not tub, is ideal as the contaminants are washed down the sewer. Care must be taken in cleansing the human body not to injure the skin, thus creating a focus for easy entry of the material. Some detergents are harmful to the skin and must be avoided. Since the normal skin is slightly acid, the addition of sodium bicarbonate in concentration of 15 to 20 per cent to the detergent usually results in thorough rinsing. Great care must be taken by those engaged in personnel decontamination to avoid contamination of themselves.

City Decontamination

Here, again, time is a most potent decontaminant. If it seems desirable to institute specific procedures, one should consider wetting to prevent inhalation of radioactive dusts from surface contamination. The use of wetting agents is quite satisfactory for the coarse particles but has little effect on the "fines." Washing with fire hose, the use of refuse removers and sweeping equipment, as well as all of the procedures mentioned for surface decontamination, are applied. Ground contamination (sod, et cetera) should be plowed under and kept wetted to prevent radioactive dusts from rising. Benches, clothing and small items which are combustible should be burned in suitable incinerators to prevent dispersion of radioactive smoke and ashes.

Food and Water Decontamination

Water, in an urban area, is a real problem. In any bombing, inhabitants of cities and those dependent upon a public water supply should at once draw water into containers which can be closed and sealed. If radioactive fission products are liberated, the outside of these containers could become contaminated, but with the opening protected by caps, double covers, et cetera, the contents can be used subsequently. Foods that are canned or wrapped in protected packages are highly desirable. It would not be out of line perhaps to again mention the importance of having on hand in cans or protected packages sufficient food for several days' or weeks' use. These cans can be washed thoroughly or the outside wrappers carefully removed and disposed of without contaminating the contents.

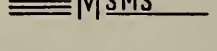
Disposal of Radioactive Wastes

The problem of disposal of radioactive wastes from a contaminated area is being explored along several lines: (1) concentration and confinement until all activity has ceased, (2) incineration, and (3) dilution beyond the harmful concentration stage. Activated sludges, bacterial slimes, dust collection and filtration—all are being used experimentally in the disposal of harmful radioactive waste products.

References

Note.—This information on decontamination was obtained from lectures and the following publications:

1. Hearing before the Joint Committee on Atomic Energy of the Congress of the United States.
2. Survival Under Atomic Attack, 1950. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office.
3. The Effects of Atomic Weapons, September, 1950. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office.



X-ray films of suspected bone cancer should include a large area adjacent to that about which the patient complains. Stereoscopic views should also be made. Also, chest films, both postero-anterior and lateral, should be made at the same time.

Survival Shelters, Emergency Supplies and First Aid Kits

By John J. Grebe, Ph.D.
Midland, Washington

THE following subject matter is intended to augment the excellently prepared articles, bulletins, moving picture films, and books that are available on the general subject. Some of these are listed in the appendix. In addition to the contents of these publications, the medical profession should also know the broader picture of the hazards to be expected for guidance of practical and economically sound civil defense efforts. Most people will overlook the significance of a statement made in the Armed Services educational film, "Medical Services in Atomic Disaster," in which it says: "One plane—One bomb—One city." This should be taken literally. The area of a city might be 150 square miles, and still one bomb may be sufficient to destroy it. This is due to the fact that the bomb, while taking with it only several square miles, produces an updraft immediately following the blast. The rising cloud of hot gases serves as an enormous chimney that makes the entire city into a fireplace.

Even with incendiary bombs used alone, as they were in the Hamburg raid, similar chimney effects were obtained which, when once started, produced winds across the city toward the base of the chimney of gale intensity. Any fires accidentally started or set by very few incendiaries reaching ever widening circles will burn down all of the city that can be ignited from intense, circumferential fires in a converging wind. Even fireproof buildings will add kindling. Windows, if not broken by the blast, will be smashed by the flying debris which will ignite the contents. Even large park and water areas may be jumped by flying embers.

Nor should we think in terms of radiation, blast, fire and wind damage alone. If the enemy chooses to preserve an area physically for future use, but to make it unlivable for some time to come, that too is possible with the A-bomb. The direct effects from radiation, shock and a mad scramble out of the area will leave many casualties behind.

In other words, the bomb may be used to insure the entrance through millions of broken windows of bitter cold winds, as well as chemical, biological and radiological agents that will leave their human toll, although not destroying any more than what the enemy considers most desirable for im-



Fig. 1

mediate crippling of transportation and production, and for getting rid of populations that do not go along with their philosophy.

Finally, we should expect the most potent and insidious type of attack—psychological warfare—in combination with any of these approaches. These will range all the way from the use of various materials that dement and torment people, to carefully incited, cool, calculated, precisely executed sabotage. The major enemy effort is to be expected in the line of producing a vacillating, uncertain, compromising, or overzealous administration of vital defense offices that leaves everything in a turmoil. A different slant can be expected at each city.

The tremendous success of psychological warfare techniques, as currently practiced on both sides of the iron curtain, as evidenced from ordinary news items that seep through, leaves one with more of a shudder about what can happen here than all the information on what an atom bomb has done in the past, or is likely to do in combination with other known techniques in the future. Certainly, the Reds will improve immeasurably on the highly successful Nazi efforts.

These general considerations emphasize the necessity for the medical profession as a whole to be the major analyzing, rationalizing and stabilizing influence in a community. The writer can say that,

being entirely outside of that profession. This is a responsibility far beyond any you may have visualized in the past. It is definitely beyond what you will ever get credit for or be appreciated for, by the population as a whole. It is the price of leadership.



Fig. 2

Now, then, what will we do about the problem as defined above? The first and most important aspect is that each citizen must recognize that the major preparation cannot, and will not, be done for him by any federal, state, or local agency. The typical American capacity for independent judgment and individual responsibility with freedom of action will prove our secret weapon for survival when it comes to a pinch. Americans do co-operate and pull together but they also use their individual heads. The danger of over-organization and over-regimentation cannot be stressed enough. Co-ordinated effort on a voluntary basis will bring effective protection. We must recognize that even if the worst does happen here, and half our homes are denied or useless, we will still be better off than the early settlers who built our country. Even if all power, communications, and public transportation fail and all the cities are uninhabitable, we will still be ever so much better off than the people who built this nation under peacetime conditions.

We have a wealth of land sprinkled with farm homes that can be operated independently, as well as millions of summer homes, cottages and hunting lodges. Even the enormous amount of camping equipment within our nation would provide luxuries compared to what was available to the early settlers. For this reason, it is important to make sure that our cottages, our automobiles, our gasoline supply, our camping facilities, our stored food and water and other necessary supplies and tools be protected against general fires.

Looking at it from this angle, it is obvious that no external agency could possibly take care of this sort of thing for the individual. If it tried to, it would break our economy because of the excessive taxes and excessive cost of the government doing a thing for people that they should do themselves in their own spare time.

Each person should see to it that the things he and his family will need the most will survive a general fire in the area. One does not need to worry too much about radiation and blast effects from atom bombs; after all these would cover only a small area, which might well be left without survivors by suffocation and carbon monoxide poisoning due to the smoke and heat from the

surrounding area being sucked into the chimney rising from the center of the blast.

The best form of survival shelter is a root cellar or cyclone cellar, such as our early settlers could not get along without. In fact, with the doors properly sealed and the cover supported on a porous framework and made of ordinary top soil, preferably good humus and grass, there is enough ventilation by diffusion through the humus to protect the people inside from biological and chemical agents at the same time that it protects them against fire and minor blast and radiation hazards. One square yard of diffusion surface should suffice for one occupant. Actual tests should be made on each structure to make sure it is adequate.

The next best protection might well be steel and concrete structures, which, however, depend upon forced ventilation, air filters and a source of power.

The kind of equipment that most urban dwellers may well see fit to provide will be a modification of a basement room, taking advantage of a door or window opening as an escape directly to the outside with an extra-strong fireproof ceiling and the usual concrete or cinder block partition. The emergency exit should be amply identified outside. The two doors must be particularly well built and fitted and should be made up of a fireproof and heat-resistant diffusion wall, such as a product called Kay-Lo, which consists of diatomaceous earth bonded with calcium silicate. Wire screens on both sides of a frame filled with charcoal for diffusion panels should make a very good door. Similarly, the ceiling may well be made of a new permeable product consisting of a thick layer (up to 4 inches) of fibrous materials, such as excelsior fireproofed and bonded with magnesium oxysulfate cement. Such a material available in large sheets is tough, and would insulate and ventilate by diffusion. Plastering and painting of cinder blocks and cement blocks should be avoided to add to the capacity for ventilation by diffusion.

Finally, there will be many smaller structures and facilities that local conditions and individual aptitudes and desires will dictate. For example, much can be stored in a hole made by removing several blocks from a basement wall and then digging out the earth beyond and lining it with an old drum, rot-proofed wood or even bricks and tile. The blocks may be set back into position to act as a door. Thus, for very little expense one may have many cubic feet of safe storage facilities for some of the most essential tools and supplies.

In other instances, old drums nested and filled with sand between the walls will make flameproof and heat-resistant storage spaces that can be set out in the yard or even partially or wholly buried.



Fig. 3

It is also possible to store ordinary canned goods so densely, and stacked with layers of transite, asbestos paper or metal between each layer, that only the outer cans would be likely to overheat or explode, in case a fire sweeps through the storage space. Chests and cupboards can be arranged to resist burning to the point of giving fair protection to the contents. One should also not overlook the possibility of doing simple things to make a particular cache more safe at the time of the emergency by pouring water onto the sand or soil or cinder blocks that may be used for a fire ball, or before a fire is expected to reach the particular spot.

One of the first things to remember to do is to shut off the hot water heater, both the electrical, gas or other source of heat, and the water valves. This supply of uncontaminated water retained in the tank may mean the difference between life and death.

Every effort should be made to make survival at your normal location possible. This keeps you among your friends and neighbors where psychological attacks are less of a hazard. If caught in a mob, disperse.

Medical supply kits must similarly be reasonable

and practical from the point of view of availability and cost. It is unlikely that a sufficient number of bandages can be bought and stored for each location. On the other hand, old sheets and other articles of clothing that are being discarded should be washed and ironed and securely wrapped with or without dry heat sterilization in an oven. These should then be placed into such tin cans that are normally discarded, for example, potato chip cans and large metal containers obtainable from bakeries and restaurants, and then placed where they are reasonably protected against fire and water contamination. If sealed with solder or tape, they would provide essential supplies that might keep many people from freezing to death in winter after a fire or from death from improper protection against infection for lack of bandages to protect against blast and radiation damage. A supply of ordinary soda should be packed with thec lothing for wet dressing of burns.

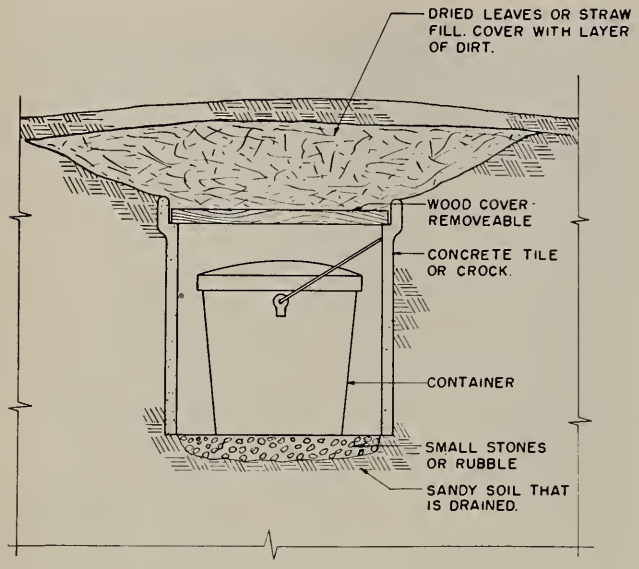


Fig. 4

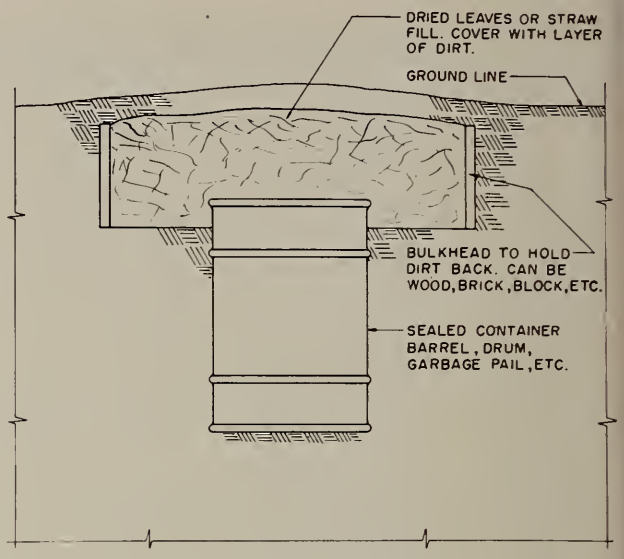


Fig. 5

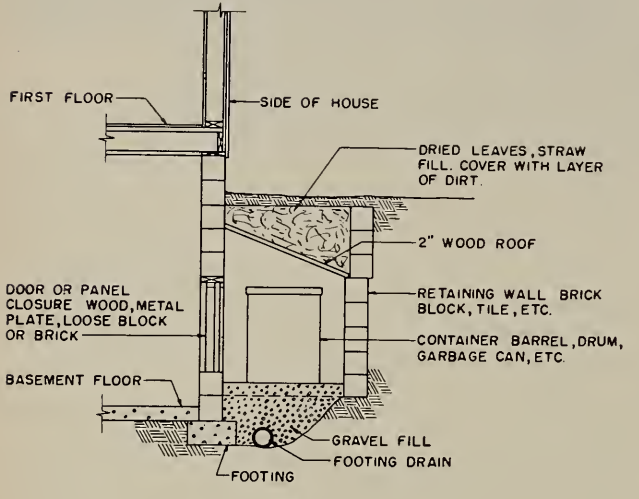


Fig. 6

The appended list of publications, films, and circulars will provide much more detail than one can give in this over-all discussion.

In order to take practical self-help out of the realm of speculation and generalities, the Kiwanis Club of Midland, Michigan, has made a project of building and equipping survival shelters, emergency supplies, and first aid kits. These are illustrated here with pictures, descriptions and sketches (Figs. 1-6).

All these grim thoughts and forebodings will accomplish their purpose if, as we confidently believe, this nation will for once gird its loins in time to prevent attack. Then we will be able to think of these efforts in retrospect as the most satisfying and even delightfully vitalizing experiences. The drones may say "a sheer waste of (otherwise idle) time."

Dow Chemical Co.

Appendix

Survival Under Atomic Attack. Prepared by U. S. Atomic Energy Commission, and may be obtained from Superintendent of Documents, Washington 25, D. C. (10c).

How to Survive an Atomic Bomb. By Richard Gerstell. Two editions: (1) Combat Forces Press, Washington, D. C., distributed by Rinehart & Co., New York ($1.95); (2) Bantam Books, New York (25c).

United States Civil Defense. Prepared by the Office of Civilian Mobilization of the National Security Resources Board. Superintendent of Documents, Washington 25, D. C. (25c).

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The Management of Patients Burned by Atomic Explosion

By Merle M. Musselman, M.D.
Eloise, Michigan
and
Robert E. L. Berry, M.D.
Ann Arbor, Michigan

IN ORDER TO formulate a plan for the treatment of burns resulting from atomic explosion it is necessary to have an understanding of the medical service problem involved. Because the atomic bomb is efficient only when used against relatively large concentrations of material or centers of population, it is reasonable to assume that Detroit is the most logical target in the State of Michigan. In the event of an atomic attack on Detroit 50,000 casualties (not including those killed instantly) may be expected. Of these, 40,000 will have sustained burns.[14] Since in the State of Michigan there are only 62,233 hospital beds, over half of these being in mental institutions, large additional facilities will have to be provided for emergency hospitalization. Ideally, such emergency facilities would be located outside the target area as close to existing hospitals as possible. Regardless of the number of trained medical personnel available, additional help by civilians adequately trained in the emergency treatment of burns will be necessary in order to save the greatest number of lives. Tens of thousands of casualties will have to be transported some distance perhaps changing hands several times before definitive therapy can be instituted. The estimate of the medical supplies and equipment necessary for treating thousands of burned patients is staggering. If treated ideally, each victim with a burn of 40 per cent of the body surface would require at least forty-two tanks of oxygen, thirty-six pints of plasma, forty pints of whole blood, 100 pints of other fluids, 2.7 miles of gauze, three nurses and two doctors.[14] Because of these circumstances the management of patients burned by atomic explosion must be something less than ideal.

Dr. Musselman is Surgical Director, Wayne County General Hospital, Eloise, Michigan, and Instructor in Surgery, University of Michigan, Ann Arbor, Michigan.
Dr. Berry is Assistant Professor of Surgery, University of Michigan, Ann Arbor, Michigan.

Nature of the Burn

The burns caused by an atomic explosion may be either of a flame type or a flash type. Many persons will sustain flame burns from the conflagration which follows the explosion, but such casualties will be few since those not seriously injured will escape the fire while the others will perish in the holocaust. The flash burns are produced by tremendous amounts of thermal radiation acting for only a fraction of a second. The radiant energy resembles that of the sun. The rays travel in straight lines and protection against them is afforded by any material casting a shadow. At a moderate distance from the epicenter, clothing light in color and loose fitting provides protection.[2,9,15]

Except that the margins are definitely circumscribed, flash burns are similar to those produced by flame. Experimentally, flash burns are characterized by a coagulative type of necrosis of the epidermis and dermis with eschar formation and subsequent sequestration rather than the organization seen in the non-coagulative necrotic tissue of the moderate temperature burn.[11] In a flash burn of moderate severity the epithelium grows out freely beneath the unorganized eschar so that healing is rapid.

The high incidence of marked keloid formation observed in the Japanese casualties was probably due more to severe secondary infection, malnutrition with attendant slow healing, and increased propensity of the Japanese for keloid formation than to any factor characteristic of an atomic burn.[3,9] Sublethal doses of gamma and neutron radiation increase the seriousness of infection in such burns because of deleterious effects upon the blood-forming organs.

Treatment

Emergency Care.—The casualties from the attack will first be evacuated by litters and vehicles to aid stations located along the main routes of evacuation. Here the patients can be tagged and sorted as to the type and severity of injury and given priority for further evacuation. Pain can be relieved and emergency procedures such as the arrest of hemorrhage or the performance of tracheotomy for laryngeal edema may be carried out. A

hypotonic salt solution* can be prepared from readily available materials and administered by mouth for the prevention or treatment of shock.[16]

Relief of Pain.—First and second degree burns are very painful. Third degree burns are less painful because of destruction of the full thickness of the skin. Morphine is effective in controlling this pain and should be given intravenously when possible to avoid the danger of delayed absorption in the patient suffering from shock. Morphine syrettes containing suitable dosages of the drug would greatly facilitate administration. The routine use of anesthetic ointments as a means of pain relief would be too time consuming and could be harmful in the case of second and third degree burns because of contamination with uncleanly application.

Prevention of Infection.—Burn patients should be handled in as cleanly a manner as possible. As in the case of most wounds the contamination incurred at the time of injury is less than that consequent to the care of the wound, particularly that derived from the fingers and respiratory passages of attending personnel.

Patients should be moved as soon as possible to suitable installations where adequate dressings may be applied. An occlusive dressing prevents further contamination and alleviates pain. Cleansing of the burned area will probably be impossible with the large number of patients. More harm than good will result in such attempts at debridement unless it can be done carefully under suitable conditions. General anesthesia for the dressing should be avoided if possible, reliance being placed upon opiates and sedatives for the control of pain. Strips of vaseline gauze are most commonly used as the intimate dressing but some prefer dry gauze. These are then covered by mechanics' waste or cotton and the dressing secured in place by elastic roller bandages. Hands should be dressed in a position of function, and elbows and knees in a position of extension. Great quantities of dressing material must be made available. A prefabricated burn dressing has been described by Allen.[1]

Recent revival of the "exposure" treatment of burns[4,13] has been given impetus by the threat of atomic attack. In the event of disaster such form of treatment may well be forced upon the medical services by the lack of time and materials to apply suitable dressings. Moreover, it avoids certain disadvantages of the closed treatment. Mobility of joints would be less impaired and more quickly restored. The danger of impaired pulmonary ventilation from pressure dressings about the chest and abdomen and the necessity for time-consuming traumatic sessions for changing dressings under anesthesia are eliminated. The patient swathed in bandages cannot readily dissipate his body heat. The adverse effect on shock[12] and the undesirable increased metabolism[4] from increased body temperature resulting from interference with heat dissipation has long been recognized. The warm, moist, anaerobic interior of a burn dressing must certainly be an excellent incubator for bacterial growth. This type of treatment is undergoing investigation in many burn centers. Disadvantages observed to date are: (1) pain is not relieved as with an occlusive dressing, (2) absolute cleanliness is necessary to prevent bacterial contamination, and (3) the method has its greatest applicability when the extent of the burn is less than 30 per cent of body surface.[13]

Antibiotics are routinely used in burned patients to aid in the control of infection. Appropriate measures for immunization should be taken whenever there is question of contamination with clostridial organisms. Pre-disaster mass active immunization with tetanus toxoid would be of great value in this regard.

Prevention and Treatment of Shock.—The great majority of patients with 10 to 20 per cent burns need no replacement therapy other than oral electrolyte solution. They should be encouraged to drink all they can tolerate and as much as 10 liters has been administered by mouth during a twenty-four-hour period.[16]

When more than 20 per cent of the body surface is burned, shock is usually inevitable unless adequate prophylaxis is possible. Shock results from a decrease in the blood volume produced by loss of extracellular fluid into the burned area and from the burned surface and by loss of red blood cells. The red blood cell mass is reduced by hemolysis, capillary dilatation, blood stasis and sludging, and petechial hemorrhages in the area of the injury. These factors, together may produce a 50 per cent drop in the circulating red blood cell mass in a few hours. A 20 to 30 per cent burn may require as much as 2 liters of blood during the first twenty-

*Contains 3 to 4 gm. sodium chloride and 1.5 to 2.0 gm. of sodium citrate, sodium lactate or sodium bicarbonate.[3]

four-hour period together with the oral electrolyte solution.[4,7,10] When a patient is in shock electrolyte solutions will not be absorbed from the gastrointestinal tract and Hartman's** solution should be given intravenously, the amount administered being based upon the patient's clinical response.[4,8,16] A urinary flow of 50 cc. per hour suggests that renal function is adequate and replacement therapy satisfactory.[5]

Burns of 30 per cent of the body surface or greater require a minimum of whole blood in an amount equal to 4 per cent of the body weight together with salt solutions equal to 8 to 15 per cent of the body weight during the first twenty-four hours.[8] The administration of blood substitutes, such as acacia and gelatin, has been recommended when blood or plasma is not available. In the event of a disaster the use of such substances may be necessary.

The drinking of fluids other than electrolyte solutions should be restricted during the first forty-eight hours because of the danger of water intoxication.[4,7] When electrolyte solutions are being administered intravenously, the careful administration of limited amounts of 5 per cent glucose in water is necessary to provide water for insensible loss and urinary excretion. After forty-eight hours resorption of the edema fluid begins and salt solutions should be discontinued and the patient permitted to drink water.

Definitive Treatment.—After final evacuation of burned patients and adequate help and supplies have become available, optimum definitive treatment may be instituted. Efforts must be directed towards preventing anemia by repeated transfusions. Malnutrition, hypoproteinemia and the loss of sodium, potassium and calcium salts from the granulating surfaces should be combatted by the oral administration of a diet containing over 200 grams of protein a day reinforced by enough carbohydrate and fat to provide 1000 calories in excess of normal requirements. If the patient is unable to eat, feedings by gastric tube should be instituted. The use of parenteral preparations for maintaining the patient's nutrition is so inefficient as to preclude their use except as an adjunct to vigorous efforts at oral feeding. Multiple vitamin supplements, particularly of C (1.0 gm. per day) and B complex, should be provided.

**Lactate Ringer's—contains 2.5 gm. sodium lactate, 6 gm. NaCl, 0.3 gm. KCl and 0.2 gm. $CaCl_2$ per 1000 cc. of water.

Closure of the Wound.—Attention should be directed early toward closure of wounds by skin grafting. Before grafting is attempted, anemia and malnutrition should be corrected insofar as possible. Infected granulating surfaces are treated by saline solution, Dakin's solution or antibiotic solution. Surgical debridement of the wounds may be performed and immediate or delayed skin grafting carried out, depending upon the condition of the wounds. Sheets of split thickness skin grafts should be used to cover the burned areas. These may be applied either to healthy granulation tissue or the burn wound may be excised and the graft applied to normal tissue. Excision of the burn wound is preferable since the residual scar is greater when grafts are applied to granulating surfaces.

Summary

The management of patients burned in an atomic explosion poses a large problem. Mass casualties must be treated by mass production methods.

Burns resulting from an atomic explosion differ little from burns produced by flame. Consideration must be given to five interrelated phases of treatment: (1) the control of pain, (2) reduction of infection by cleanly care, application of dressings and administration of antibiotics, (3) the prevention of shock by the early oral administration of hypotonic saline solution followed by the administration of whole blood, (4) the treatment of anemia and malnutrition by oral feedings and whole blood transfusions, (5) early closure of the wound by skin grafting.

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Psychiatric Aspects of Civilian Defense

By Raymond W. Waggoner, M.D., Sc.D.
and
Leonard E. Himler, A.B., M.D.

Ann Arbor, Michigan

INDIVIDUAL and group reaction to peril is so variable and dependent upon so many factors that these factors must be considered in any program of civilian defense. The development of the A-bomb, the possibility of the use of an H-bomb, the question of newer types of Chemical and of Bacteriological warfare are serious threats to the civilian population in and near centers of war production potential. Public awareness of the tremendous destructive effects of atomic explosions, and of the possible radiological and heat effects, is such as to make likely severe and endangering emotional reaction unless through further study and planning these effects can be prevented by the use of suitable measures. Abrupt consciousness of peril as in a bombing action, unless promptly neutralized, can lead to severe and dangerous disruptive behavior.

It is essential that physicians as well as all others whose duty it is to carry out first aid procedures in time of disaster be given a clear understanding of the emotional factors in emergency situations which often constitute a greater problem than physical injury or disease. The majority of patients requiring psychological first aid will be suffering from physical injuries. A certain proportion will be suffering from shock without physical injury, and these will show variable degrees of nervous and emotional instability. In emotional as in physical first aid, the physician must avoid errors which result from limiting his attention only to obvious injuries, and from failure to examine the patient carefully. The physician who is oriented in psychiatry and psychosomatic medicine will not require new therapeutic methods in dealing with wartime casualties. He may, however, be called upon to assist in the preparation and training of auxiliary personnel for wartime emergency work.

Since there is no experience in our culture with public reaction to an atomic explosion, it is necessary to plan on the basis of the reactions reported from Hiroshima and Nagasaki, and to utilize the type of responses seen in association with other types of disaster. Panic-producing accidents like those of Texas City and the South Amboy explosion and the reaction to bombing as evidenced during World War II are the most significant examples available. From these occurrences means of immunizing the public against dangerous reaction to peril should be possible.

During the last war, it became apparent that the civilian population of any country involved in war was exposed to almost as much danger as its military personnel. For this reason, it seems logical to assume that the civilian population should receive some of the kind of indoctrination which is given to military personnel. This is particularly true in urban centers which are apt to be exposed to raids. Urban centers are the source of the war material which maintains the military machine, and unless the civilian population involved can maintain its productive capacity efficiently, there is no possibility of military success.

In order to plan intelligently, it becomes necessary to have clearly in mind factors which have to do with disruptive behavior. Certain of these factors are a function of the psychological reaction pattern of the individual, certain have to do with activities of what has been called the fifth column. Imitative behavior and suggestibility are very important, since all persons are more or less suggestible. Groups tend to follow suggestions which may be placed before them, particularly if the suggestion is dramatic and involves the unconscious anxieties of at least some of the group. This may lead to a degree of panic in which individuals fail to exercise critical judgment, with reactions occurring at a lower intellectual level. Since imitation is in part manifested at the unconscious level, individuals tend to copy the reaction of others and such behavior spreads like wildfire. The Coconut Grove disaster exemplifies this type of reaction.

A particularly significant source of disruptive behavior is present in the sometimes fanciful description of new weapons in the hands of the enemy. This is a factor in psychological warfare

Free use has been made of the material collected and written by the "Committee on Co-operation with Government Agencies" of the Group for the Advancement of Psychiatry, and the National Council for Mental Hygiene (London). The material has been considered and approved by the Mental Hygiene Committee of the Michigan State Medical Society.

which was so well developed during the last war. The constant announcement of new techniques which are extravagantly destructive, tends to keep civilian population at fever heat of anxiety, as for example the atomic and hydrogen bomb, and the threats of chemical and bacteriological warfare. The presumption of some mysterious and fantastically successful weapon leads to reactions of fear. This is increased by the lack of public information concerning such weapons.

The development of rumors by either actual fifth columnists or by what might be described as unconscious fifth columnists tends to activate the factors described above. Rumor may be started intentionally by those who want to stimulate disruptive behavior. Maladjusted individuals may have a compulsive need to spread misinformation of an alarming nature. On the other hand, many loyal Americans allow themselves to express their anxiety in statements not based on fact. This serves to start rumors which after a few repetitions may become very distorted, and very harmful to the civilian population.

The prevention of disruptive group behavior is to a large extent dependent upon the psychological strength of the population. Measures designed to increase the mental health of the population are imperative. In line with the comments made above, it becomes necessary to educate the public to the actual danger in terms of the kind of warfare possible and the degree of destruction that may be expected. It would seem of value to publish informative articles in newspapers and to have a series of radio broadcasts over stations which have large audiences based on such educational measures. Leadership which will inspire public confidence should be established in each community, particularly those in or near urban centers. Leaders should take an active part in the educational and informational programs to be developed in various parts of the country. It would be of great value if the authenticity of this material was fairly well established from a central source. In the military services, disaster films and those which show the destruction of life and property have been found to help immunize the service man against what he must face in actual combat. Similar films could be adapted for public consumption. A very important part of the civil defense planning should be the establishment of intensive training programs for the peace officers in each community and the development of plans for the evacuation of the area should disaster occur. Furthermore, proper steps might be developed which would lead to the control of the dispersal of misinformation and of dangerous unauthorized broadcasts.

It is impossible to estimate with any degree of accuracy the number of psychiatric casualties to be expected. During World War II, plans were made for the care of numerous psychiatric disabilities in England, and yet when various cities in England were subjected to intensive bombing, to the great surprise of many, psychiatric casualties were actually relatively few. Nevertheless, there must be an awareness of the possibilities. An individual can react to threats of danger by fear with controlled and reasonable behavior; or his fear may be manifested by the occurrence of disabling physical symptoms, some degree of which we have all experienced at times of danger; by complete incapacity as a result of his emotional reaction; or the individual can withdraw completely from reality and become psychotic. By far the greatest number of psychiatric casualties will be some type of an immaturity reaction. Mass reaction, on the other hand, which may be actually set off by individual behavior, can be expressed in panic, in apathy, and complete demoralization. Acute, temporary panic states, dependency reactions, and hysterical outbursts are examples of reaction patterns to be expected, the treatment of which will be discussed later. Tyhurst has described the various phases of reaction to mass disaster as follows:

1. The period of impact.
This is duration of the initial stress.
2. The period of recoil.
This follows immediately after the impact period and may last from several hours to a day or more. Other stresses occurring during this period may continue to cause difficulty, as for example the presence of severe physical injury.
3. The post-traumatic period.
It is during this time that full awareness of the disaster develops and the individual is faced with significant alterations of his environment. It is during this time that there may be severe emotional outbursts.

A group in panic is thoroughly disorganized and frequently without leadership, with individuals in the group acting oftentimes at cross purposes. Strong leadership evolving from some individual in the group, or from someone in the community, can integrate these individuals and assist in bringing the panic under control. This is essentially the function of individuals already prepared for this type of activity in the pre-disaster planning.

Civilian defense personnel frequently turn to the physician for guidance and advice in the understanding of nervous and emotional disorders, and for specific instruction in first aid treatment of neuropsychiatric casualties. The "Red Cross First Aid Manual" used in the conventional training courses treats this subject only briefly and inadequately, and does not do justice to the importance it assumes in maintaining individual morale and in the prevention of panic.

The emergency treatment of psychiatric casualties is most effectively undertaken through an understanding of the various normal and abnormal manifestations of fear and anxiety. Fear is defined as the emotion which accompanies awareness of danger, and when appropriate it is a constructive force which mobilizes the individual's energy for defense and protection. But when it is pathologic, fear may have devastating effects on the individual. Physical factors such as fatigue, lack of sleep, and nutritional deficiencies play a contributory part in both predisposing to and in aggravating fear. Anticipation of unknown danger from such threats as the atomic bomb or bacteriologic warfare may in some individuals be more productive of fear than actual danger itself. As Crile stated, the patient who is overcome by excessive fear is like a car with the clutch out and the motor racing; the whole mechanism trembles, much energy is consumed, but no headway is made.

Before proper treatment can be applied it is necessary to recognize and differentiate conditions which are primarily, if not entirely, due to mental and emotional reactions. The commonest symptoms resulting from fear and heightened emotional tension include:

1. "Hysterical" states in which the patient shrieks, laughs and cries, trembles violently, throws himself about and is difficult to control.

2. Aphonia, amblyopia, or paresis of extremities.

3. Sudden unconsciousness, or trance-like states, fainting.

4. Mental confusion with restlessness.

5. Complete or partial amnesia.

6. Dramatic complaints with fixation on such symptoms as palpitation, dyspnea, weakness, and apparent exhaustion without physical explanation.

7. In extreme cases, a state of "shock," in which the patient becomes cold, pale and apprehensive, accompanied in some instances by weak pulse, hypotension, shallow breathing, and danger of collapse and heart failure.

The first aid treatment for all these conditions is of a somewhat similar character and is fairly simple provided some advance preparation is made. Physicians and civil defense personnel should be aware of the effect of their own personality, and of the influence which an air of calm assurance has on these patients. Excitable people should always be spoken to in a calm, even tone of voice, and with an air of authority. Loss of temper, shouting, scolding, or showing anxiety only increase the patient's symptoms and spread insecurity to others. The individual in control should show by his words and deeds that fear reactions will respond to treatment, and that his concern is for the patient's comfort, not his life. Patients who show excessive emotional reaction should be dealt with firmly but kindly, and treated like a frightened child. This approach is well expressed in the words, "In quietness and confidence shall be your strength."

A patient who is excitable should be moved as soon as possible away from others who have visible physical injuries. Then he should be given an opportunity to talk out his fears and anxieties in the presence of a sympathetic listener. It is always worthwhile to spend a few extra minutes to establish such a contact. The patient should not be given an opportunity to talk to other patients or to repeat his preoccupations to everyone who approaches him. Punitive treatment by those who do not understand and who become impatient with the patient's overdramatized suffering and seeming desire for attention only serves to aggravate the symptoms.

Excitable and overactive patients tend to resist any attempt at physical restraint. Grasping their wrists or holding them down will usually only increase their struggles. It is far better to take their hand in a strong friendly clasp which invites trust and offers security. When the patient is lying down he is less likely to resent the restraining effect of a blanket well tucked in; one person sitting on each side may keep it in position if necessary. Interruption of the anxiety reaction is often best handled by heavy sedation, especially by the use of barbiturates.

It is a scientific axiom that the best antidote for fear is some kind of constructive action. The mere fact of being occupied has a stabilizing effect on many people, including those manifesting milder forms of nervous excitement. Such patients can be assigned to some small job not involving great re-

sponsibility but demanding attention. Emphasis should be placed on well-planned and well-directed, not meaningless or useless, activity. Participant activity which allows the individual to share his efforts with others striving toward a common goal is one of the basic determinants of high morale.

The effectiveness of specific techniques such as reassurance, suggestion, and re-education, depend first of all on the personality of the therapist, his understanding of human nature, and his skill in applying experience in interpersonal relations to each individual case. After the emergency situation has been brought under control, the physician and his psychologically trained aides should provide opportunity for the patient to unburden himself of his fears, ventilate his preoccupations and anxieties, and build up confidence and rapport on which his acceptance of further out-patient or hospital therapy must be based.

It is to be emphasized that war as such does not cause mental disorders, but rather brings to light certain abnormal mental conditions already present in predisposed individuals. Patients who developed neuroses in the last war were those who in childhood had exhibited morbid fears, insecurity, and disturbed family relationships. Breakdown resulted not so much from immediate danger of bodily harm as from disruption of the particular pattern of life established by these susceptible individuals.

When psychologic first aid and appropriate aftercare fail to bring about a restoration of emotional balance, psychiatric referral will be indicated. Referral of such cases requires skillful handling and is in itself a form of therapy for the patient, requiring both directive and nondirective counseling techniques. As in handling emergency problems, a good approach is to consider methods used to induce a reluctant, resistant, or bewildered child to carry out a necessary task. Referral to a psychiatrist should be carried out in the same way as referral to a dentist or surgeon. If there is initial resistance, the referral must be made with the aid of reassurance, and suggestions bearing on the desired outcome of treatment. It is obvious that if an emergency situation is capably handled, rapport and co-operation in subsequent contacts with the patient are greatly facilitated. Physicians and their civilian defense aides must constantly be alert to the effect of their initial contact with neuropsychiatric casualties.

Summary

1. Active medical participation and leadership in community defense planning is essential.

2. The physician has an important responsibility in education and morale building in his community.

3. Physician awareness of psychiatric danger potentials in any disaster is necessary.

4. Early treatment of milder psychiatric cases with reassurance and support will usually suffice.

5. Referral of patients with chronic and severe emotional disturbance to psychiatric treatment centers is necessary, but comprehension of adequate referral methods is equally important.

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MSMS

When a physician suspects bone cancer he must be able to differentiate between normal, benign and malignant conditions. The ten radiologic signs which indicate bone cancer are: (1) a localized, ill-defined, irregular area of increased density in the bone; (2) palisade needle-like spicules at right angles to the periosteal border of the bone; (3) periosteal accretions of new bone, or cuffs on either side of the primary lesion; (4) periosteal, irregular, fibre-like spicules radiating from a localized area of damaged cortex; (5) localized expansion of bone which is denser than the adjacent normal bone; (6) localized osteolysis of bone, either cortical or endosteal; (7) localized, irregular disintegration of a previous bone lesion; (8) localized, irregular, cyst-like extensions and expansions of bone; (9) metastases in other bones or lungs; and (10) a large expanding soft tissue tumor associated with normal underlying bone.

The Doctor's Responsibility in Atomic Diseases

By Vlado A. Getting, M.D.

Commissioner, Massachusetts Department of Public Health

Boston, Massachusetts

PHYSICIANS ARE concerned with two principal uses of atomic energy. The peacetime use of atomic energy is not new, but its application in new and novel ways is constantly affecting the lives of more and more individuals.

Peacetime Use of Ionization Radiations

The poisoning of instrument radium dial painters called the attention of physicians, physicists and engineers to the dangers of the accumulation of radium in the body, primarily the bones. This danger of the ingestion of radioactive materials was later confirmed by observations on persons who drank "curative" waters which contained radium.

All physicians are familiar with the dangers of overexposure or continued exposure of the same parts of the body to repeated small doses of x-ray. The ulcerating and cancerous hands of our early x-ray investigators are constant reminders of the biological effects of repeated radiation.

However, it was not until nuclear physicists began their extensive research as a war effort that physicians obtained more information of the biological effects of ionizing radiation. Now the industrial hygienist, the physician, the physicist and the sanitary engineer are concerned with the use of radioactive isotopes in industry. The industrial hygienist is attempting to control exposure of workers to ionization radiations. The physicist is carefully studying the nature and the use of the radioactive isotopes and measuring the intensity of ionization radiations throughout various industrial processes. The physicist is developing monitoring devices that measure the amount of exposure to ionization radiations. The doctor makes careful examinations of workers and provides treatment of those who may have exceeded the 0.1 r per day or 0.3 r per week, which are the accepted tolerance levels for those exposed continuously five working days a week. The sanitary engineer is becoming concerned with the proper disposal of radioactive waste so as to safeguard the public.

Moreover, the use of radioactive isotopes in many universities and medical schools and hospitals in treatment and research is becoming greater. The work of the Atomic Energy Commission in the development of atomic energy for peacetime use as well as for war has been partially described in some declassified releases. Naturally, there must be a considerable amount of restricted information relative to atomic energy so classified because of national defense needs.

However, physicians are being called upon to take a much more responsible role because of the possible use of atomic energy by an enemy against our civilian population.

Atomic Energy in War

Much has been written about the possible use of an atomic bomb against American cities. Speculation has ranged from the most fantastic descriptions to more plausible expectations based on a realistic evaluation of fact, some shrewd guesses and an analysis of world-wide events.

It may be assumed that unless some unforeseen international agreement outlaws the use of the atomic bomb, the next war will be introduced by the bombing of American cities with some type of atom bombs. While it is unlikely that atom bombs will drop on Boston, New York, Philadelphia, Los Angeles, Detroit, or other key metropolitan areas within the immediate future—that is, this year—it must be assumed that when the enemy is ready to start total war, that is when he has produced what he believes is sufficient number of atom bombs, he may attack America by simultaneous mass bombing of key cities. It is possible that an enemy may have sufficient bombs within three to five years.

Atom bombing may occur as (1) an air burst at about a 2,000 foot altitude, probably by means of a radio-guided airplane, or guided missiles; (2) a surface or near surface burst over water or land, such as a selected cellar or the top floor of a skyscraper; (3) a sub-water burst.

Of these the air burst is most likely, as it would have the greatest anti-personnel effect and at the same time be extremely effective against a material target. It is, therefore, wise to review the effects of atom bombing in Japan.

Presented on September 21, 1950, at the Eighty-fifth Annual Session and Postgraduate Conference of the Michigan State Medical Society, Detroit, Michigan.

An Atomic Bomb Burst in Japan

The morning of August 6, 1945, began clear and bright in Hiroshima. At 7:00 a.m. an air raid alarm was sounded, but at 8:00 a.m. an all-clear was sounded after the planes had disappeared without bombing. Many people were at breakfast. Only some of the laborers were at work, but most of the downtown business people had not gone to work. Consequently, a large percentage of the population was at home and relatively few were in the more strongly constructed business buildings.

At about 8:15 a.m. there was a blinding flash. Some described it as brighter than the sun, others likened it to a magnesium flash. Following the flash there was a blast of heat and wind. The large majority of people within 3,000 feet of ground zero were killed immediately. Within a radius of about 7,000 feet almost every Japanese house collapsed. Beyond this range and up to 15,000 to 20,000 feet many of them collapsed and others received serious structural damage. Persons in the open were burned on exposed surfaces, and within 3,000 to 5,000 feet many were burned to death while others received severe burns through their clothes. In many instances clothing burst into spontaneous flame and had to be beaten out. Thousands of people were pinned beneath collapsed buildings or injured by flying debris. Flying glass particularly produced many non-lethal injuries at greater distances from the center of the blast.

Shortly after the blast, secondary fires began to spring up over the city. Those who were able made a mass exodus from the city into the outlying hills. There was no organized activity. The people appeared stunned by the catastrophe and rushed about as jungle animals suddenly released from a cage. Some few apparently attempted to help others from the wreckage, particularly members of their family or friends. Others assisted those who were unable to walk alone. However, many of the injured were left trapped beneath collapsed buildings as people fled by them in the streets. Pandemonium reigned as the uninjured and slightly injured fled the city in fearful panic. Teams which had been previously organized to render first aid failed to form and function. Those closer to ground zero were largely demobilized due to injuries and death. However, there were physically intact teams on the outskirts of the city which did not function. Panic drove these people from the city just as it did the injured who could walk or be helped along. Much of the city's fire-fighting equipment was damaged beyond use so that soon the conflagrations were beyond control.

Types of Injuries from Atomic Bombing

1. Secondary injuries accounted for a large number of the immediate deaths, especially those due to falling debris. Blast effects do not appear to have been as prominent near the center as in high-explosive blasts. This is partly accounted for by the fact that the bomb was an aerial burst and partly by the long duration of positive phase of blast. There were few reports of ruptured eardrums due to the blast. Secondary injuries occurred up to 15,000 to 16,000 feet from the center of the blast but beyond 7,000 feet they were usually of minor nature and were due largely to flying glass.

2. Flash burns indicate that a very high temperature was reached. Survivors report feeling a heat wave at 24,000 feet, but skin burns probably did not occur beyond 15,000 feet. People in the open directly under the bomb were so severely burned that the skin was charred dark brown or black. The exposed surfaces of the skin were burned most severely but persons were burned through clothing. Japanese houses and even clothing offered some protection against flash burns within 3,000 feet of the center. Flash burns appeared to heal promptly and showed no unusual clinical features.

3. Radiation effects of the bombs have been confined to those who were in the area at the time of the bomb burst. The clinical picture has been that expected from large doses of gamma rays. Many patients experienced nausea and vomiting within twenty-four to forty-eight hours but then felt well for one to three weeks thereafter. They then developed fever and showed the typical picture of neutropenia and anemia. The severe cases usually died within a few days. Many thousands died of these effects in late August and early September. Few died who survived until October 1. Most cases of radiation sickness occurred within 5,000 feet of ground zero, and practically none who survived other injuries escaped the effects of radiation within 3,000 feet. The only structures of importance as shielding factors were concrete buildings. The degree of protection against radiation depended upon the distance from ground zero and the thickness of the concrete. Earth was also ef-

ATOMIC BOMBING OF AN AMERICAN METROPOLITAN AREA OF OVER 1,000,000

Air Bursts of three Super Atomic Bombs Having a 160 per cent Effective Area Destruction as Compared to the Hiroshima Type Bomb.

Week After Burst	Number Requiring Hospitalization	Ambulatory Casualties	Deaths
There would be about 96,000 killed outright			
1st	192,000	96,000	96,000
2nd	168,000	57,600-72,000	48,000
3rd	144,000	48,000	24,000
4th	120,000	38,400	14,400
5th	96,000	38,400	4,800-24,000
6th	48,000	48,000	2,400

fective in protecting a small number of persons in air-raid shelters and behind hills in Nagasaki. Earth has less shielding value than concrete and several times the thickness was required to afford comparable protection. Clothing and Japanese (wooden) houses did not appear to have any shielding value. Sperm counts on survivors have revealed oligospermia and aspermia in many persons who were within 5,000 feet of ground zero. Such effects may have extended further. Abortions and miscarriages were the rule in pregnant women within 3,000 feet, and such effects may have extended to greater distances.

4. A review of all the evidence indicates that there were about 80,000 deaths in Hiroshima and about 45,000 in Nagasaki as a result of the atomic bombs. The injured probably numbered 80,000 to 100,000 in Hiroshima and 50,000 to 60,000 in Nagasaki.

Atom Bombing of An American Metropolitan Area

If an American metropolitan area of over a million population were to be attacked by an atom bomb such as was used over Hiroshima on August 6, 1945, and over Nagasaki on August 9, 1945, there would be about 100,000 casualties. However, there have been many improvements in the atom bomb, and we must be prepared for multiple bombing of metropolitan areas by more effective atom bombs.

Eighty-five per cent of these 480,000 casualties would be due to blast and thermal injuries, and only about 15 per cent to ionization radiations. The traumatic injuries due to blast would involve 70 per cent. Trauma would be: 11 per cent fractures, 37 per cent lacerations due primarily to small particles of flying glass, 52 per cent contusions.

About 65 to 85 per cent of the casualties would suffer from burns; 95 per cent of these would be flash burns from the radiant energy emitted by the bomb, and 5 per cent would have flame burns due to secondary fires, such as burning clothing and buildings.

The geographic extent of each super atomic bomb burst over which these casualties would occur is:

1. Radiation injury.....1¼ mile—lethal ¼ mile
2. Thermal injury.....4+ mile—lethal 1 mile
3. Blast injury.....5+ mile—lethal 1¼ mile

Persons caught in the open and just beyond a one-half mile of zero point of the air burst would be killed almost instantaneously or die within a few hours from blast, heat and radiation effects. Within a zone having a radius of ½ mile and 1¼ mile from the center, some persons would die instantly, while a majority would receive varying degrees of injury. Outside a radius of 1¼ miles but within a radius of 2½ miles, persons would suffer injuries from flash burns and indirect blast effects but would be free of major radiation hazards, except in a possible fall-out area. Outside a radius of 2½ miles but inside a radius of five miles, persons would be injured by flying fragments of glass and other debris and suffer superficial wounds, but would be free of both flash burns and radiation injuries.

The bombing would most likely be timed for the day when most people are at work, in the congested downtown areas. Therefore, the best defense against atom bombing is warning in sufficient time to enable people either to seek specially prepared bomb shelters or to evacuate the area. Naturally the best place to be at the time of an atom bombing is away. Distance is the cheapest and best means of defense. Hence, every effort should be made to promote urban decentralization of government, hospitals and manufacturing and commercial institutions.

An Atom Bomb Burst Over a Metropolitan Area

If a bomb were dropped over a metropolitan area, it would produce first a dazzling flash which blinds the people and at the same time sears them with its multi-million degree heat. Within a thousandth of a second the bomb has changed from inert matter to a small sphere of white-hot, highly compressed gas. From this a ball of fire forms over the epicenter, usually an important war industry or transportation center, and immediately

expands into a varicolored sphere of flame. This grows ever larger and rushes downward towards the earth as well as in other directions. The ball of fire vanishes quickly; giving rise to a huge pinkish-white atomic cloud which is reflected from the still standing roofs. Quickly the cloud mushrooms over the city obscuring the sun.

Directly under the blast the evanescent flash of heat has seared pedestrians on the streets and in parks into unidentifiable charred, grotesque forms. Those fortunate enough to have been shielded by buildings from the heat are momentarily conscious of a crushing blast wave. The blast wind follows the primary blast and demolishes the buildings still standing. The air is black with dust from pulverized buildings. Soon the crashing of buildings is succeeded by a quieter but ominous roar of secondary fires.

As the holocaust spreads, there is a reversal of the blast wave. Winds rush inward as the fireball mushrooms upward. The fire-fighting equipment, if not destroyed, is useless because of the blinding heat and debris-choked streets. The water supply as well as communications are disrupted. Lights are out, the elevators and rapid transit system have stopped running, and fire spreads rapidly as the prevailing wind carries the residual radioactive ingredients and fission particles in the direction of the prevailing wind.

In the average metropolitan area the multiple bombing of industrial and transportation centers would immediately dislocate most of the large hospitals within the effective radius of the atomic bombs and not only most of the hospital facilities but also other large buildings which could be used as emergency hospitals. Within this area there are also likely to be the local utility controls such as gas storage tanks and electric power controls, the telephone, telegraph and other communications.

We must assume that the first bombs will be burst as a complete surprise. The first knowledge will be an intense flash of light with the spectrum of the sun. This will last from one to two minutes. Within a fraction of a second there will be the radiant heat wave, lasting but an instant in which the flash burns will occur. Thereupon will follow the ionization radiations. Since the buildings will still be standing, many persons will be shielded against these hazards. Lastly comes the blast with the demolition of buildings and the concurrent killing and injuring of thousands. Multiple types of injury will occur.

A cloud of fission products, heat, smoke, will mushroom upward and gradually float with the prevailing winds. There is some danger of a fall-out of radioactive particles and of spreading fires. The radiation injury is due to the single exposure during the fraction of a second of the radiation from the burst. In this type of air burst there is not apt to be any residual radioactive deposit over the ground.

Civil Defense Medical Department

The physician, in such a catastrophe, will have new problems to meet. The first, of course, will be the care of the injured. With the likelihood of almost one-half a million persons being either seriously injured or killed outright in a metropolitan area the remaining physicians will soon be overwhelmed. Obviously, with most of the hospitals destroyed, including the stores of medical supplies and equipment, the metropolitan area must depend upon regional assistance. Because of the suddenness of such catastrophic events it is important that the civil defense plan be developed early and the organization trained so as to go into immediate operation. It is estimated that if proper civil defense procedures are followed, 50 per cent of the casualties can be prevented. Thus, in the case of a Hiroshima type bomb burst the casualties in an American city could be reduced to about 50,000. And, in the case of a three superatom bomb burst the casualties can be reduced from almost one-half million to less than 250,000. Moreover, with the possibility of multiple bombings of several cities simultaneously each region must be as reasonably self-sufficient as possible except for some supplies such as blood, antibiotics, food and material for repairs. The region must be prepared to take care of its own emergencies so as not to disrupt the war efforts in the other parts of the country. The Medical Defense Department of Civil Defense must, therefore, be organized to provide:

1. *Determination of Radio activity.*—Determine the area which must be declared a no-man's land due to residual radio activity.

2. *Care of the Injured, Disposal of the Dead.*—Develop an organization for the identification and collection of the injured, first-aid treatment in the field, transporting to receiving stations, then to emergency hospitals and finally, to base hospitals located at a greater distance from the metropolitan area.

Because of the large number of injured there will be a lack of sufficient blood and blood substitutes and antibiotics as well as other therapeutic agents to treat all persons. Each region must, therefore, determine how it will select those persons who must be given the treatment which is most likely to insure survival. Selection of persons to be treated must be made upon (1) the exposure to radioactivity which can be determined only upon careful determination of the person's location during the period of the bomb burst or by the use of personnel dosimeter, (2) other injuries sustained by the individuals, (3) the individual's age, and (4) his importance to the community.

Persons who have received lethal doses of ionizing radiations or who have other fatal injuries should receive minimum treatment but should be made as reasonably comfortable as possible. On the other hand, children and young adults who have received sub-lethal doses should be given the maximum treatment in keeping with available personnel and supplies.

The organization of emergency hospitals in school buildings, dormitories, hotels and other large buildings in the suburbs and resort areas should be carried out under the Civil Defense Medical Department. Each such unit should have an organized staff and have all details arranged so that in time of emergency the necessary equipment and supplies will be ready for immediate use. Complicated cases requiring extensive surgery such as brain injuries or compound fractures should be moved to regional or base hospitals where special services will be available. It will be necessary to train auxiliary personnel to give first-aid treatment for burns and lacerations due to glass either at the site where the person is found or as soon as it is reasonable to give such treatment at the station.

Not only must the medical profession agree upon the standard treatments for burns and other injuries but must agree to stockpiling uniform supplies in hospitals and warehouses far removed from primary target areas. The medical profession will also have to assume the responsibility of training "medical technicians" who will form special bleeding teams not only in the suburban areas but in neighboring regions. These will immediately bleed donors into specially prepared containers in order to supplement the supply in blood banks and the American National Red Cross. Now reserves of plasma and albumin should be laid aside in safe areas for use during disasters.

3. *Medical Care of Displaced Persons.*—The responsibility of the physician in time of atomic catastrophe will be to supply the medical care for displaced persons. In any bombing with the vast destruction of the metropolitan area thousands of persons will have to move to temporary quarters not only in suburban areas but neighboring cities and towns and also summer homes and resorts. This means there will be great dislocation of private practices in these areas and facilities must be made available to supply the necessary medical and hospital care to these displaced persons.

4. *Planning of Evacuation of Hospitals on Advance Warning.*—If the American people are fortunate enough to receive a notice in advance, then there is the necessity of evacuating not only the women and children but also the patients from hospitals. This means the development of a plan whereby each hospital can evacuate to one or more places in the region. The medical and hospital authorities, having formulated a plan in advance for this evacuation, will determine the type of patient who will be moved or returned to his home and the number of personnel who will be assigned to the new quarters. Provision must be made not only for the equipment and supplies for the patients' care but the housing of the personnel and the feeding and clothing of both patients and personnel. Since hospitals will be expected to develop cadres for the staffing and operating of the emergency and receiving hospitals for the injured, the staff which is moved to the new temporary quarters must consist only of key personnel who would call upon voluntary and hired help from the area to which it is moved. Under these circumstances all voluntary operations and hospitalization shall have to be curtailed if not eliminated and only emergency surgery and hospitalization permitted.

5. *Community Health Service.*—The fifth responsibility of the physician would be to provide adequate community medical services in the presence of increased hazards to the public. Double safeguards must be taken against enteric infections, particularly if human waste is not adequately cared for since under these conditions flies and vermin can be a serious carrier of many types of enteric diseases. With crowded housing and the use of emergency housing in public buildings and the overcrowding of schools, there will be a great opportunity for the spread of respiratory diseases,

including tuberculosis, the common cold, pneumonia, meningitis, and influenza. The common childhood diseases are likely to appear in greater number. Smallpox may become a danger. Under these conditions there must be complete reporting of communicable diseases.

Conclusion

All in all, the physician is faced with new responsibilities in the preparation of our country for atomic casualties. He will have to play an intricate part of the civil defense organization. Every physician, nurse, and member of the healing aids will be subject to call in such an emergency. He will be expected to devote his time to the care of the injured and to assign the responsibility for looking after his family to other responsible persons in his household. In anticipation of disaster he will take part in the training of auxiliary personnel in first aid, home nursing, nurses aids, canteen workers, development of an ambulance corps, the setting up of emergency and temporary hospitals, the preparation of temporary evacuation sites for existing hospitals and in locating housing for displaced populations. During the actual emergency he can expect to be entirely divorced from his household and to be expected to be called to duty under the various civil defense rules and regulations and to take part and to assume the part to which he was assigned in the civil defense organization.

Some physicians may be so engaged for weeks and others for months. Rebuilding of a metropolitan area following strifing by atomic bombs will not take place for months and years to come. The physician, therefore, has not only an important role to play in the planning for civil defense but a very important role during the actual catastrophe and thereafter. His readiness and his willingness to serve under these trying circumstances will be the measure by which the American people will determine his status in the community.

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MSMS

BLOOD PROCUREMENT IN TIME OF DISASTER

(Continued from Page 266)

should be outlined, pointing out that blood and plasma will prove highly effective in the conservation of life and health and for the reduction of morbidity. The educational program should be so developed that instead of creating hysteria, it will be accepted as an encouragement to participate in the indicated defense preparations.

Continued reminders at monthly intervals should be the rule for the present, instead of conducting intensive drives and then lapsing into a state of inactivity. Sustained appeals should be continued over long periods, for many years if necessary, until the prospects of war and atomic bombing are eliminated. If war becomes a reality, then the more intensive measures will be indicated.

The Mass Blood Typing Program of Jackson, Michigan

By J. H. Ahronheim, M.D.

Jackson, Michigan

Editor's Note: The project of preparedness blood grouping of the civilian population as outlined by Dr. Ahronheim has proved to be a very excellent one. Dr. Ahronheim and his co-workers are to be heartily complimented on the thoroughness with which this has been done and with the results which they have achieved. A program of blood grouping in both critical target areas and non-target areas has been widely recommended. The National Security Resources Board and the Federal Civil Defense Administration both agree that such blood grouping projects are worthwhile, when they are related to blood procurement and the identification of group O donors. It seems necessary that future preparedness blood grouping projects should be confined to the identification of potential group O donors so that this previous screening will reduce to an insignificant number the groups of AB, A, and B donors who might present themselves. Dr. Ahronheim has kindly consented to write this as more or less of a "preview" of the Jackson project; his more detailed report will be published in the future in another journal.

MASS BLOOD typing of entire cities has always been considered a project of such magnitude that any suggestions in that regard have been met with a good deal of opposition. In recent months, however, the civil defense authorities have succeeded in arousing more interest among the leaders of the medical profession as well as the government. The Civil Defense Planning Commission of the State of Michigan has taken the initiative in that direction and decided to select one Michigan community to serve as a pilot city for such a project. This pilot study was to have the purpose of establishing standards of technical and administrative nature which would be a guide to other communities and would eliminate a haphazard and costly approach to such projects in the future. The community thus selected was Jackson, Michigan, a city with an urban population of slightly more than 50,000 and about the same number living in the surrounding rural area.

The pilot study was expected to give information on, and establish standards for the following: the project's organization, necessary equipment and material, personnel, technical details, optimal number of blood specimens processed daily, accuracy of technique, optimal number of blood collection, public relations, and cost. The study was begun on October 9, 1950, on more or less of a trial-and-error basis, and exclusively staffed with voluntary help. Through excellent co-operation of the local newspaper, the *Jackson Citizen Patriot,* the population was kept informed on the significance and progress of the mass blood-typing project, and the general interest aroused in this manner was, to a great extent, responsible for the success achieved thus far. When the project was well on its way and a regular routine of blood collecting and blood processing was established, a change from volunteer to paid help was made. At the time of this writing, between 600 and 800 blood specimens are collected daily by six blood collecting teams of five persons each and are processed in a laboratory staffed by two medical technologists and eight untrained helpers. After fifty working days, a total of 30,797 specimens were completely typed, representing close to 30 per cent of the population of the County of Jackson. Every specimen is tested for international grouping by the direct and reverse method, for the D-factor (Rh_o) and, if D-negative, for the C-factor (Rh′).

The collection of the blood samples was found to be greatly a matter of public relations and proper co-ordination. The main source was not the individual but the group, such as, factories, schools, places of business, and social organizations. For the convenience of the public, typing stations were established in downtown department stores. Proper co-ordination between typing teams and the public made it possible to have a fairly constant and even flow of material at all times.

Primarily, every person typed was considered a potential recipient and, consequently, no age limit was set. At the same time, a huge file of all blood types is being created with this project, representing a virtually unlimited source of blood for transfusions. In case of major disasters, in peacetime as well as in war, it will now be possible to mobilize an army of volunteer donors at a moment's notice and supply direly needed blood not only to our own community but also to areas more exposed to possible hostile action.

The Jackson project is far from being completed, but sufficient data have been collected to serve as a guide for similar projects in other communities.

(Continued on Page 318)

Outline of Medical Defense Activities in the Wayne Medical Society

By C. D. Benson, M.D., and
M. L. Lichter, M.D.

Detroit, Michigan

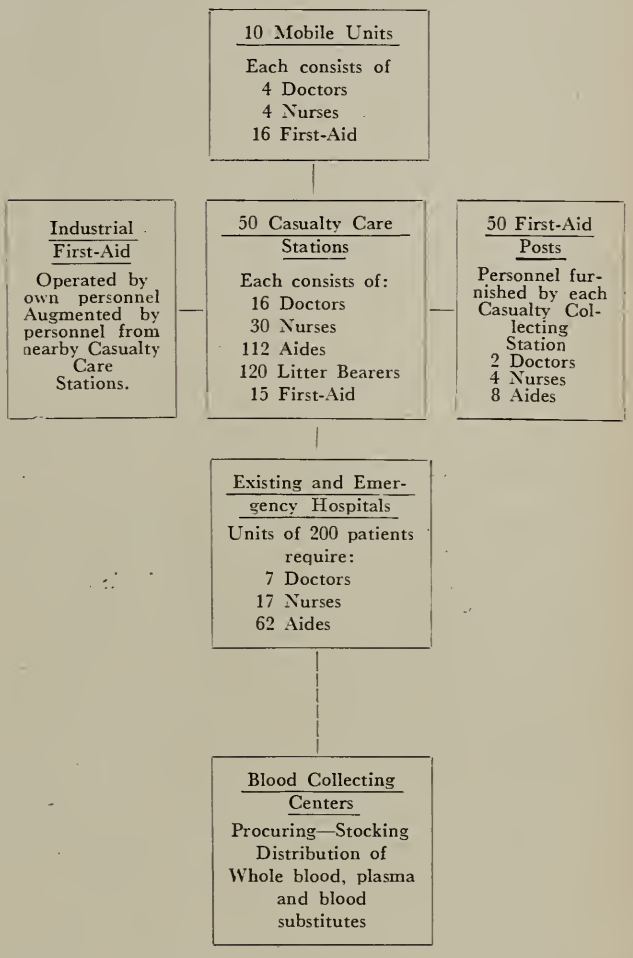
CIVILIAN defense is the defense of our existence, our very lives. It is the problem of survival of those mutually endangered. Its solution lies in mutual assistance, consideration, and concern each for another.

In many ways, the most important aspect of civilian defense is emergency medical care. Many moral issues could be raised to exalt the medical profession in this endeavor, but they would be mere platitudes and might be received somewhat cynically. The cold hard fact is that the survival of any one of us depends upon the survival of many others. In exigent circumstances, we are all bound to each other by the instinct to live. It is in anticipation of this powerful urge to survive that thorough pre-planning and complete pre-coöperation are vital in medical civilian defense. The success of medical defense planning depends upon the unselfish inspired participation of all doctors of medicine, not only in potential target areas, but throughout the entire state. Similar participation must be expected from nurses, other professional groups and the lay public.

When the Committee on Civilian Defense and Disaster of the Wayne County Medical Society was activated, it was found that no plan existed for the adequate care of people in the event of large scale disaster. The committee felt that before it could make any recommendations to the Council of the Society it would have to formulate a plan upon which to base such recommendations. It was decided that an atomic bomb disaster was, at the moment, the potentiality most immediately present. After a careful study of basic factors, the committee developed a medical defense plan which was presented to the Council of the Wayne County Medical Society and approved. It was felt that the plan as presented represented basic thinking necessary to the development of the final and detailed plan.

The major problem was the formation of a basic procedure to handle a suddenly-produced overwhelming number of casualties. For the sake of having some figure upon which to make estimations, it was assumed that one air burst atomic bomb might produce in the neighborhood of 50,000 fatalities and 50,000 injured. It was further decided that since there would be no way of foretelling the site of an atomic bomb disaster, all planning would have to be promulgated on a peripheral basis, emphasizing dispersal.

Chart 1. Units.



When one thinks in terms of medical planning for civilian defense, it cannot be too strongly emphasized that he must approach the subject as something which is entirely new, something of which there has been no previous conception. It is unrealistic to think that the problems which will exist can be integrated into our present-day method

Dr. Benson and Dr. Lichter are chairman and co-chairman, respectively, of the Civilian Defense and Disaster Committee of the Wayne County Medical Society.

of medical practice—that our present existing organizations can be expanded slightly or largely and the situation fitted in without too much disruption. That would bespeak an attitude of "business-as-usual," and would indicate a failure to grasp the elements of the problem. Again, it is emphasized that this represents an entirely new problem, unrelated to anything with which civilian populations and civilian medical people have ever had to cope. It must be understood that medical care must be furnished in as adequate a manner as can be devised, with the full realization that everyday high medical standards will not be attainable. It is with this viewpoint that one should think of the problem and thus be able to approach the task of planning.

It is not our intent to give a detailed presentation of the Wayne County Medical Society's plan, but merely to present a broad outline.

Outline of Medical Defense Plan

Chart 1 indicates the units which are required to give medical care in a disaster.

A. Mobile control units are to be developed to provide direction of evacuation of casualties, to decide on priority of such evacuation, to provide first aid to rescue personnel, to supervise initial first aid efforts in the disaster area and to make decisions concerning radiologic safety of rescue personnel. It is planned that there will be ten such units to go into the thick of the devastated area and disperse so as to cover the entire region.

B. Casualty care stations are to be set up on the periphery of the metropolitan area in school buildings. It is planned to develop fifty such stations to which all casualties requiring ambulance transportation will be brought for classification and necessary initial treatment. Each station will have its own first aid and litter teams together with its own transportation so that a fairly even flow of casualties could be maintained. An important function of these stations is that they act as buffers for the hospitals.

   1. Each casualty care station will furnish personnel to establish first aid posts at approximately one and one-half miles from the center of the detonation for the purpose of furnishing definitive first-aid treatment to those casualties who are able to walk or get about by themselves. This will reduce the transportation load and reduce congestion at the casualty care station. In addition these first-aid posts would be able to give some medical care to very seriously injured casualties before they were transported to the casualty care station.
   2. Any industry suffering from effects of an atomic bombing would be able to request additional personnel and supplies from the casualty care stations in its area. Casualties in industry requiring ambulance transportation would be taken to the nearest casualty care station and thus be integrated in the medical care program. Nearby first-aid posts would be ready to furnish definitive first-aid treatment to any of the walking casualties in the industry involved. Any industry not directly involved in the bombing would participate in the medical defense effort with its facilities, supplies and personnel.

C. In addition to the remaining existing hospitals in the area, emergency hospitals would be planned to handle a minimum of 22,000 casualties requiring definitive hospital care. These would be established to handle a minimum of 200 bed patients or a multiple thereof in order that there be no waste in efficiency of medical and other professional personnel. Casualties would be evacuated from the casualty care station to these hospitals according to a pre-arranged method. From these hospitals patients would be further evacuated to outstate institutions. As another means of coping with this tremendous patient load, the casualty care stations, as they completed their primary task of providing emergency care, could in turn become emergency hospitals.

D. Blood collecting and distribution centers would be established in peripheral locations under the supervision of and in co-operation with the American Red Cross. Uninjured survivors would be directed to these centers for the purpose of giving blood. Whole blood coming in from other sources would be sent to these centers. From the centers the casualty care stations and the emergency and existing hospitals would requisition whole blood and blood substitutes.

TABLE I. PERSONNEL

Personnel Type	Mobile Control Units	Casualty Care Stations (Includes First-Aid Posts)	Hospital Staffing (Based upon units of 200 bed patients, or an estimated total of 22,000)	Totals
Doctors	40	800	770	1,610
Nurses	40	1,300	1,540	2,880
Anesthetists		200	330	530
Nurses' Aides		5,600	6,820	12,420
First-Aid	160	750		910
Litter Bearers		6,000		6,000
Laboratory		500	770	1,270
Radiation Detection and Survey	175	100		275
Totals	415	15,250	10,230	25,895

Estimate of Personnel Requirements

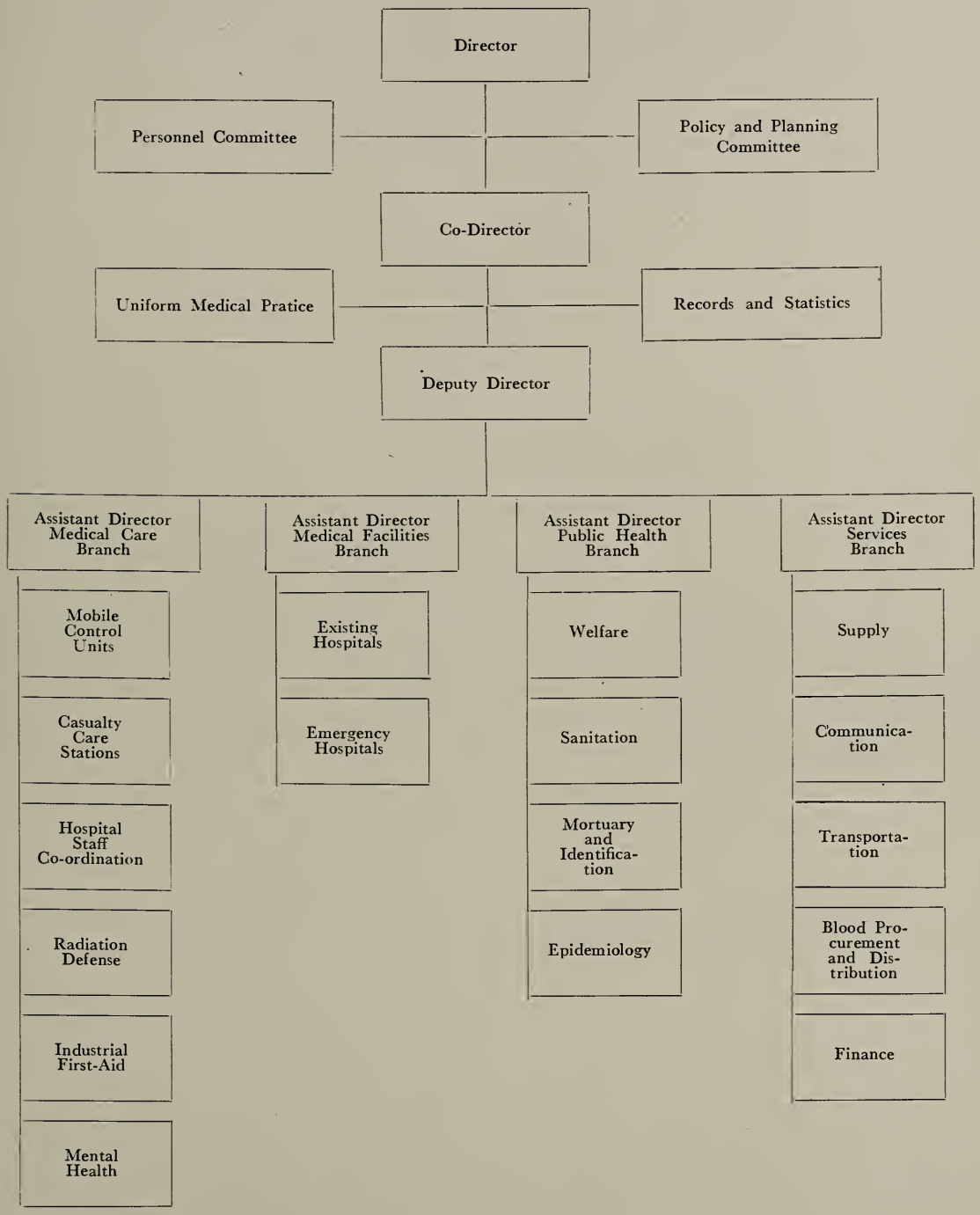
The foregoing effort requires a huge number of individuals and yet the estimate is considered minimal to do the job (Table I).

A. 1,610 doctors are required. It is estimated that 1,200 doctors will be available from Wayne County. The estimate, while it is rough, considers the possibility of casualties among doctors, and military service. Thus it can be seen that at least 410 doc-

tors from surrounding county and outstate sources must be planned. It has been felt that obtaining this number of doctors, and even more, will present no difficulties.

D. 6,000 litter bearers and 750 first-aid men are required for casualty rescue work.
E. It is estimated that a minimum of 1,270 laboratory personnel will be required.

Chart 2. Organization.



B. 3,410 nurses and nurse anesthetists are required. Again surrounding county and outstate sources will be called upon to augment the number that can be obtained in Wayne County.
C. 12,580 nurses' aides and first-aid personnel are required for casualty rescue work.
F. For radiologic detection and survey it is estimated that a minimum of 275 specially trained non-medical people will be required.

The total number of individuals required to make the plan work is nearly 26,000. It is hoped

that an even larger number of people will participate, so that no matter what the circumstances might be, somewhere near the minimum number will be available during the emergency phase.

Chart 2 is an outline of the organization of the Medical Defense Plan. It will probably not differ too much from the final organizational chart of the Medical Division of the Office of Civilian Defense in Detroit, except in the rearrangement of some of the sections.

The development and functioning of this plan has been designed in such a manner that it can be integrated in the over-all Civilian Defense Program of this area. The direction of a Medical Defense Plan is the rightful responsibility of the local Commissioner of Health, and such is the case in the City of Detroit. Several members of the Wayne County Medical Society have been asked to fill important billets in the organizational structure. This is chiefly in connection with the development of the Medical Care Branch. The medical facilities are to be developed by the Detroit Area Hospital Council in conjunction with county, municipal and federal government hospitals.

The personnel committee will be composed of a representative from each of the professional groups (such as nurses, dentists, et cetera) participating in the plan. Each of these individuals will be charged with the responsibility of procuring the professional personnel he represents as the need arises as the various sections in the plan develop.

The problem of uniform medical practice and that of records and statistics will be studied and planned by the Committee on Civilian Defense and Disaster of the Wayne County Medical Society.

The Public Health Branch of the Medical Defense Plan is to be the responsibility of the Health Department. Its work is in the process of active organization.

The problems of the Services Branch are tremendous. They require close co-operation with the Communications and Transportation Divisions of the Detroit Office of Civilian Defense. The problem of medical supplies and equipment is the biggest headache of all. It is recognized that a tremendous amount of medical material will be required. However, as yet, there has appeared no clear-cut directive as to where these supplies will come from and who will be responsible for furnishing them.

Figure 1 is a schematic representation of the distribution of the various units in the medical defense plan. An outline of the City of Detroit is presented, and imposed upon it is the pattern of destruction of an air burst atomic bomb. As can be seen each unit is represented by a different symbol. The major units are distributed in a peripheral fashion with the hope that some, if not all, of the units would be able to function regardless of the site of devastation. Immediately after the detonation, all individuals would go to the point of their assignment. The mobile control units, which would gather in various peripheral portions of the city, would be the very first units dispatched, to go as far as possible into the devastated area to carry out their prime function of direction of the medical effort from within. Practically upon their heels the ambulances from the various casualty care stations would transport the litter bearers, first-aid people, and the individuals assigned to the first-aid posts. The first-aid posts, to take care of ambulatory casualties, would be set up at about one and one-half miles from the center of the detonation. This might be the point at which the ambulance vehicles from the particular casualty care station would await litter casualties. From this point the litter bearers and first-aid personnel would go on foot into the devastated area for the purpose of rendering immediate first aid to casualties and litter transportation. The litter bearers would bring the casualties back to their own ambulances. The casualties would be transported to the station from which the ambulance originated. In this fashion it is conceived that a fairly uniform distribution of casualties to the various care stations would be possible. At the casualty care station, after proper classification and necessary treatment to prepare casualties for further transportation, evacuation to remaining existing hospitals and emergency hospitals would take place.

As has been stated, Figure 1 is schematic, and the explanation given is, necessarily, also schematic. There are many details which require solution in the functional aspect of this basic outline. It is conceived that the proposed distribution of units would enable functioning in the event of detonation of two atomic bombs. In this instance the units would have to be spread so as to cover each area, which would mean heavier casualty loads and more arduous work for participating personnel. This would, of course, be necessary because the job would have to be done. It is considered that there is enough flexibility in the planning to make this possible.

Other Committee Activity

The Committee has appointed several sub-committees to study very important matters, and these are worthy of some comment:

C. A sub-committee has been appointed to study the problem of radiation sickness and to develop uniform treatment procedures. In addition the sub-committee will make available to the chairman of education speakers on this phase of the problem

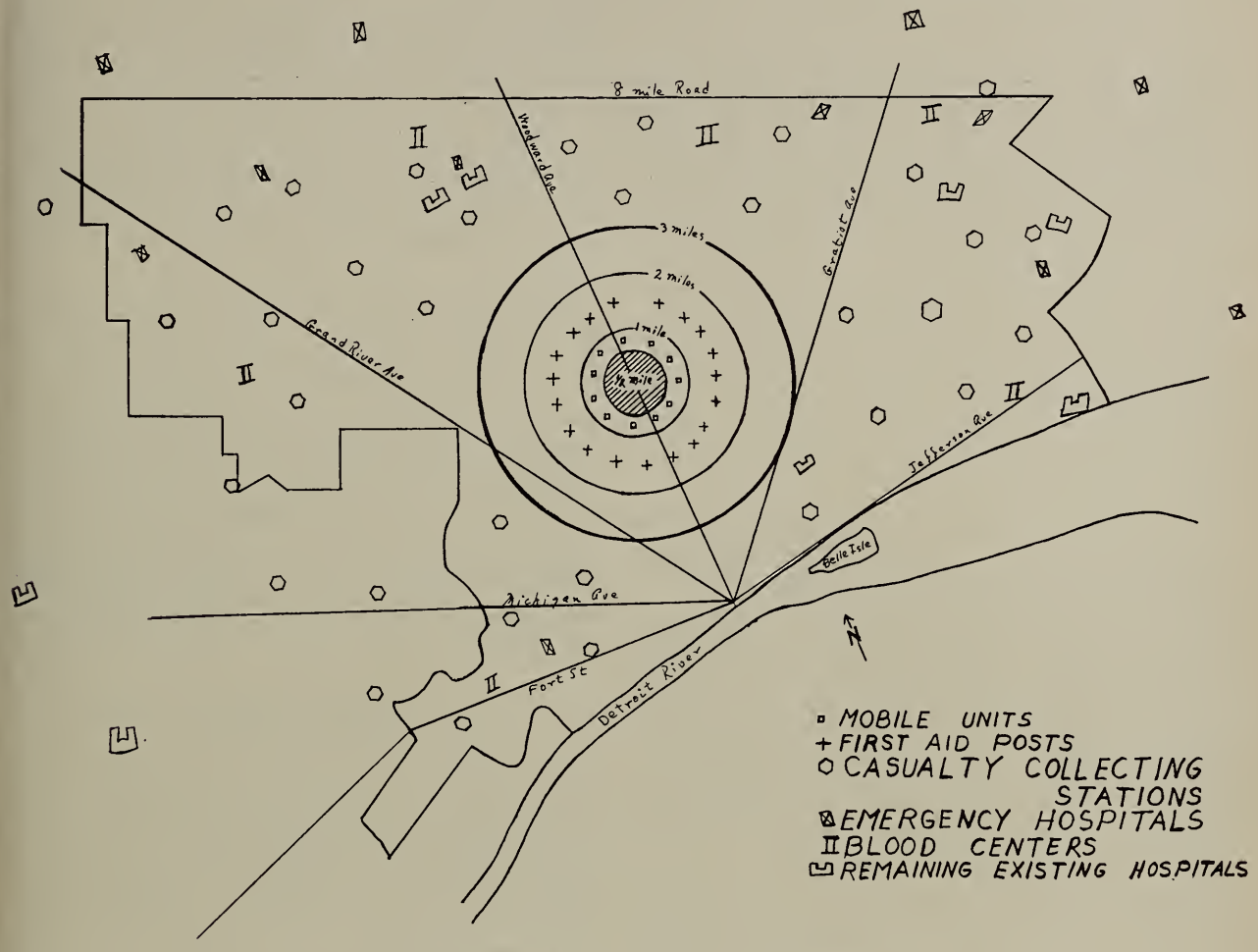


Fig. 1. Distribution units. Schematic diagram.

A. A sub-committee on education has been formed, and it is actively engaged in carrying out its assignment. The sub-committee is charged with the responsibility of education of doctors, nurses, non-professional personnel in the medical plan, and the general public. The chairman is a member of the Public Relations Committee of the Detroit Office of Civilian Defense. Under way at present is the educational program for doctors; this is being done at staff meetings of the various hospitals in the area. Planning is being developed for the other segments of the educational program. This committee is ready to co-operate with other county medical societies or other official groups in the state.

B. To develop standard methods of surgical treatment, several sub-committees have been appointed for this purpose. These are soft tissue injuries, burns and shock, chest injuries, orthopedic injuries, and maxillo-facial injuries.

for the medical education program.

D. A psychiatric sub-committee has been appointed for the purpose of studying psychiatric impact of large scale disaster on the population. It is to advise the education sub-committee on the best method of presenting pertinent material to the public in an effort to ward off widespread hysteria and panic. In addition the sub-committee is to develop a simple procedure of elementary psychotherapy which will be taught to all individuals participating in the medical defense plan. A final function is the development of plans for handling serious psychiatric problems in the event of a disaster.

E. A sub-committee on radiologic defense has been appointed. Its function is to develop plans and methods for radiologic detection, survey, decontamination where necessary, and standards of permissible radiation dosage.

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Take Cover! Atomic Bomb!

By Major Reynold A. Atlas

THE only real defense against the atomic bomb is to prevent one from going off, just as with a TNT bomb. We cannot prevent casualties—we can only reduce the number. Many thousands of the casualties at Hiroshima and Nagasaki could have been prevented or saved by proper knowledge, training, and plans.

Two basic types of atomic-bomb burst are: first, a burst high in the air such as at Hiroshima and Nagasaki, and second, an underwater burst such as "Test Baker" at Bikini. Essentially the same basic bomb was used, but with different adaptations.

Let's talk first about the atomic bomb exploding high in the air, as at Hiroshima. Casualties there were heavy—66,000 people killed, 69,000 injured—53 per cent of the city's population. Think of a small city of about 250,000 population where only 115,000 people remain uninjured, to care for over 69,000 injured people and to bury 66,000 dead. In Nagasaki, because a valley confined the damage to one portion of the city, casualties were lighter—39,000 deaths and 25,000 injuries. This was still a tremendously high toll for one bomb.

What caused all these deaths? The most amazing figure is the relatively small number caused by radioactivity from the bomb—only about 15 per cent of the total. Over half the casualties resulted from the blast—the same as in the bombings in Europe—only much stronger. As strong as the shock wave from the blast was, there were no cases of direct damage to internal organs. What caused the damage was collapsing buildings, flying debris, shattered window glass, et cetera.

In an American city, most of the buildings 1½ miles distant from the center of the bomb burst would require major repairs. Since the shock wave travels through the air, there would be no damage to roads, pipelines, or other underground installations.

At the hearings before the House Armed Services Committee, many were very surprised at the statement that a person could stand at one end of the Washington National Airport and come through an atomic-bomb explosion at the other end with "no serious injury." This is understandable if it is remembered that casualties are mainly caused by collapsing buildings and flying debris. Since the end of the runway is open country, there is really nothing to cause injury. About all that can happen to a person at that distance is to be knocked over by the blast, possibly breaking a leg and receiving skin burns. This is the reason that an enemy would not drop an atomic bomb in open country.

Thirty per cent of the A-bomb deaths were from burns, either from fires that resulted from the bomb—the same bomb fires as in Europe—or from the intense heat radiated by the enormously hot explosion. These flash burns come from exposure to the strong infrared and ultraviolet rays from the bomb, similar to the burns caused by the sun. Persons two miles distant received painful burns on exposed portions of their bodies, such as the face and arms. Severe burns resulted in heavy and ugly scar tissue of the skin.

Clothing Ignited

Clothing at one mile burst into flames. Those with light-colored clothing suffered less than those with dark-colored clothing because it reflected more of the heat rays instead of absorbing them. Thus, those wearing striped clothing were burned corresponding with the stripes. Paper, straw, and similar materials caught on fire more than two miles from the devastation, starting many more fires. The more fireproof construction in this country would decrease these casualties. There were few direct injuries to the eyes from the flash.

The damage done to the body by radiation from the atomic bomb, which is the same as from x-rays or radium, can be compared with that done by a bullet. If a bullet wounds you it does certain damage to the body. Then it is just a matter of recovery from the damage—you can forget all about the bullet. The same with radiation. It strikes instantaneously and does certain damage to the body. Then it is just a matter of medical recovery from that damage. You can forget all about the radiation because it is finished. You are not radioactive yourself. You cannot contaminate some one else.

Abstracted and reprinted by permission from the September-October, 1950, issue of *Ordnance Magazine*.

Little Radiation Danger

A few minutes after the bomb burst over Hiroshima the city was perfectly safe from radiation danger. All the damage had been done. Then it was just a matter of recovery—or burial. The city was, and is now, perfectly safe to live in. Crops now grown in the city are as good—or bad—as before the bomb went off. The bomb was purposely exploded high in the air to obtain the maximum blast damage, and, as a result, the bomb cloud containing the radioactive particles rose to a height of 35,000 feet and then drifted away so that there was no residential radioactivity in the city.

What is this damage to the body? The damaging effect of radiation is destruction or damage of the individual cell. The extent depends on the amount of radiation exposure and the type of cell —although the red and white blood cells are most seriously affected. Destruction of the circulating blood cells is a temporary loss. Damage to the mother cells in the bone marrow is more serious, affecting formation of new cells. Nausea, vomiting, headaches, and diarrhea are the immediate symptoms. Anemia, hemorrhage, and infection follow.

This radiation sickness does not show up immediately, except for very high exposures. It may take hours or even a day before the symptoms appear. They may then disappear and a latent period of a week or more follow when the individual can return to work. When the symptoms reappear, death may result a week or two later—or slow recovery.

Treatment for radiation sickness consists primarily in whole-blood transfusions, penicillin, and good nursing care. When a person has recovered, there is no loss of limbs, scars, paralysis, blindness, or physical disability. The result of exposure to radiation is either death or complete recovery.

One can be exposed to small amounts of radiation every day without any ill effect. You are also exposed to the radiation from the radium in the luminous hands on your watch. But since all this is well below the permissible dose, no one suffers from it.

The atomic blasts at Hiroshima and Nagasaki caused damage to the cells of the testes and ovaries of certain persons, resulting in some sterility, almost all this temporary. People imagined a future race of monsters would be born in Japan. This widely held misconception is completely false. The genetic effects are primarily to increase the number of mutations but not to change the abnormalities. Unusual new individuals are not produced.

To date there is no evidence of any change in the children of survivors of the Japanese bombings. Baldness that resulted from the bomb was also temporary. The hair grew back the same as before within two or three months.

The other type of bomb burst is under water, such as Test Baker at Bikini, in which case the results are very different. There is no searing flash to burn people and start fires. There is no tremendous blast to flatten a large area of the city. An immense column of water is thrown up, a mile high, weighing millions of tons. From this comes a mist containing the radioactive fission products, spreading out over an area of many square miles. There is not the enormous instantaneous radiation as from the high air burst, but the radioactive mist radiates enough in a few minutes or a few hours to so damage persons in this area that they can die in a matter of days.

The principal hazard is due to the lingering radiation wherever fission material has fallen. The intensity of the radiation decreases very rapidly in a little while, so that the longer one can remain out of the area, or in a safe shelter, the better.

Of course, some cannot wait for the radiation to decrease, such as first-aid people, radiological defense monitors, and recue parties. They may have to go into the area immediately and take their chances. This was the same situation as with the first-aid men during the last war who often had to work under fire.

Depth Determines Danger

The extent of the contaminated and dangerous area depends greatly on the depth of water where the bomb is exploded. At Bikini, the lagoon was 180 feet deep. If a bomb went off in San Francisco Bay where the water is 50 feet deep, for example, the area contaminated would certainly be much less. This is the same situation in most harbors in this country. In many places to get good results from an underwater burst it would be necessary to go so far out to deep water that there would be relatively little contamination falling on the city.

Which type of atomic burst an enemy would use we can only guess. Most authorities believe that the high air burst such as at Hiroshima will be used primarily because it will result in the most damage

and casualties from blast, burns, and fires. Only 15 per cent of the deaths would be due to radiation. However, we must also be prepared for the residual radioactivity of an underwater blast.

An Expensive Weapon

Regarding the expected use of the atomic bomb, this weapon is now, and probably always will be, very expensive. To give an idea of the cost, the Atomic Energy Commission received an appropriation of about one billion dollars this year. Divide this by an estimate of the annual production of atomic bombs and one can see what they cost. Therefore they will be used only against very high priority strategic targets, densely populated areas, concentrated industries, and other critical areas. They probably would not be used against dispersed troops in the combat zone or other targets as widely dispersed.

Fortunately the atomic bomb is not very suitable for large-scale sabotage—except in magazine stories. Certainly the clandestine method of delivery is not likely to be used to start a war. The A-bomb is, however, very suitable for a limited amount of sabotage, both because of the enormous damages that one bomb properly placed will do and because it is so difficult to detect.

Atomic contamination of drinking water is not too probable, although always a potential hazard. In a few extreme cases where a special type atomic bomb would be dropped directly into a reservoir, it might be necessary to rely on water from wells or trucked in from another area for a short time. After that, controlled use of drinking water would be within a wartime tolerance. If a large city, such as New York, had its water supply contaminated with radioactive isotopes, it might be in great difficulties, but it would not be a catastrophe to the people there. Decontamination, which is removal of the radioactive material, is rather difficult, but it can be done. In the case of individuals, it must be done to prevent serious internal injury.

There is no way to destroy any radioactive material, stop it from radiating energy, or render it harmless. We can burn it, melt it, dissolve it, put an electric charge through it, but the material will be just as radioactive as before. We can only remove it—primarily by physical means—and transfer it someplace else where it will not bother us, such as by dumping it at sea or burying it in a deep hole.

Washing with lots of good soap and water is the primary means of decontaminating individuals, in which case the radioactive material goes down the drain. After the underwater blast at Bikini much decontamination was done by washing contaminated ships with water from fire hoses.

But to be realistic, during a war we expect danger—not peacetime safety. In addition, exposure after an atomic explosion is for a rather short period. The wartime tolerance has not been set as yet, but it may be very much more than the present peacetime tolerance. We know what the danger is from higher exposures, but that does not mean that we can always avoid overexposure. In time of war, we will often have to overexpose many people deliberately.

The atomic bomb is newer, more powerful, and more complicating than any other weapon, but it is just an additional hazard in a total war. It is certainly not the final end to everything. It does not mean the complete destruction of any country. We cannot prevent casualties from it, but we can do much to minimize them.

As an example, many thousands of people in Hiroshima and Nagasaki died because they did not bother to take cover when the air alert sounded; others bled to death or died from other medical causes because they did not receive first-aid treatment in time. Thousands of people were burned to death because they were not rescued from burning buildings soon enough.

However, let us not become too complacent about the atomic bomb and think that it is overrated. Just remeber the 135,000 casualties in Hiroshima from one bomb—from an old-fashioned obsolete bomb at that. The present-day bomb can do far more damage.

Three Important Facts

There are three important facts to remember about the atomic bomb used at Hiroshima: (1) casualties, 135,000 plus tremendous damage from one bomb; (2) of the deaths, 85 per cent resulted from blast and burns, only 15 per cent from radiation; (3) soon after the bomb exploded the radiation was finished. The resulting disaster was like any other—only bigger.

MSMS

In breast cancer there are several diagnostic methods which may be of considerable aid in reaching an accurate diagnosis. Probably the most important is careful but gentle palpation of the breasts by a well-trained physician.

Detroit Physiological Society

Meeting of November, 1950—Detroit

Transamination in Normal and Induced States of Growth

Paul D. Bartlett

Edsel B. Ford Institute for Medical Research, Henry Ford Hospital.

Low transaminase activity in rapidly growing embryonic, malignant, and regenerating tissue, and marked uptake of ingested N^{15} in the dicarboxylic acids of tissue proteins suggest an inverse relationship between transamination and the synthesis of proteins and an important function for transamination in the dynamic state of amino nitrogen. Studies on aspartic-glutamic transaminase and concentrations of α-amino acids and glutamine in normal and induced states of growth have proven particularly interesting in this respect.

Treatment of normal adult female rats with anterior pituitary growth hormone produces no change in hepatic, renal, or skeletal muscle transaminase. Transaminase activity in skeletal muscle of rapidly growing normal rats is lower than in similar tissue of adult normal and immature hypophysectomized rats. Growth hormone preparations at low dosage levels sufficient to produce the physiological response of gain in body weight produced a significant decrease in the transaminase activity of the *tibialis anticus* muscle of immature hypophysectomized rats. Concentrations of α-amino acids in skeletal muscle of hypophysectomized rats in induced states of growth and in rapidly growing normal rats are higher than in normal adult and untreated hypophysectomized rats, while concentrations of glutamine are lower. Hypophysectomy appears to have no effect on the hepatic or renal transaminase of rapidly growing immature normal rats. A decrease in liver weight and an increase in hepatic transaminase were observed in pair-fed hypophysectomized rats treated with anterior pituitary growth hormone and in normal rats maintained on a greatly restricted food intake. Renal transaminase was unaffected. Growth hormone had no effect *in vitro* on the transaminating capacity of liver, kidney, or skeletal muscle homogenates prepared from untreated hypophysectomized rats.

Treatment of Paroxysmal Supraventricular Tachycardia with Neosynephrine Hydrochloride

John M. Czuj and Seymour K. Wilhelm

Mt. Carmel Mercy Hospital

Fourteen out of fifteen attacks of supraventricular tachycardia occurring in 13 patients were treated successfully with Neosynephrine Hydrochloride after other methods failed. A freshly mixed 1:2000 dilution of the drug was administered intravenously within a period of twenty to thirty seconds so as to get a precipitous rise in blood pressure. The theory was that a rapid rise in pressure within the aortic arch and carotid sinuses elicited cardio-inhibitory reflexes with resultant bradycardia. A systolic pressure of 160 mm. of Hg. appeared to be the level at which these inhibitory reflexes were set up terminating the tachycardia. The average therapeutic dose was 1.0 mgm. although the patient was given an initial dose of 0.5 mgm. to assay the pressor response. In the successful cases, the time of conversion to normal sinus rhythm was twenty-five to ninety seconds after the beginning of the injection.

Side effects included tingling, coolness, anxiety, precordial pain and headache. Low blood volume as in hemorrhagic shock rendered the drug ineffective. Subcutaneous and intramuscular injections did not give the desired responses. Previous administration of barbiturates and adrenolytic drugs dampened the efficacy of this drug.

Arteriosclerosis, hypertension and any arrhythmia except supraventricular tachycardia are contraindications to the use of this drug. The possibility of cerebral hemorrhage or ventricular arrhythmias remains although none have been reported. A normal or elevated blood pressure during the attack defeats the purpose of the drug.

Where mechanical methods fail, Neosynephrine may prove to be the treatment of choice in selected cases of paroxysmal supraventricular tachycardia.

The Solubility of Bone Salt and its Relation to Calcification

Adrian C. Kuyper

Wayne University College of Medicine

Calcium and phosphorus are present in normal plasma in concentrations which suggest that they are solubility equilibrium with the bone salts. The question arises as to whether or not this state of solubility equilibrium actually exists. Such a state of equilibrium would be a fundamental relationship which would control not only the levels of calcium and phosphate in the blood but also the calcification process in both normal and pathological states.

In order to show that this state of solubility equilibrium exists it is necessary to demonstrate that the amounts of calcium and phosphate ions in the blood are the same as the amounts in solubility equilibrium with inorganic precipitates or bone, when these are equilibrated with inorganic salt solutions. This has been done. However, this state of equilibrium is reproduced only over a limited period of time; over a long period of time the solubility decreases and becomes less than the corresponding solubility in plasma.

A second condition for the existence of this solubility equilibrium is that precipitates formed *in vitro* from solutions of the general composition of blood plasma have the same general composition as bone. Within the limits of experimental error, results so far reported indicate that this is true. Thus, the magnesium, citrate and carbonate contents of the bone are about the same as those of inorganic precipitates.

A consideration of the solubility levels of calcium and phosphate in pathological states indicates that in at least some of these, as apparently in the normal individual, bone salts are in saturation equilibrium with the serum salts.

SURVIVAL SHELTERS

(Continued from Page 274)

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(Continued from Page 277)

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Detroit Surgical Association

Meeting of January 22, 1951

The Surgical Treatment of Massive Lymphedema

Darrell A. Campbell, M.D.
Ann Arbor, Michigan
Joseph K. Isley, M.D. and
Will W. Glas, M.D.
Wayne County General Hospital,
Eloise, Michigan

Chronic lymphedema of the lower extremities is often a progressive and totally disabling disease that does not yield to conservative measures. The type under discussion is a sequel to infection. Ineffective operative measures in the past have included scarification, excision of skin, subcutaneous implantation of fascia, silk threads and other foreign materials to assist lymph flow. A major surgical procedure was introduced by Kondoleon in 1912. Homans suggested, in 1936, the total excision of diseased subcutaneous tissue below the knee, sparing the skin. Macy, in 1940, and Poth, in 1947, reported experiences with the excision of all skin and subcutaneous tissue of the leg below the knee, with coverage by free skin grafts.

The technical details of this operation as modified by Blocker was described as performed on three patients. Case histories and progress reports of these three patients were presented and illustrated by photographs. All obtained relief of symptoms, and the two mentally competent were restored to active labor. The authors conclude that this technique is a satisfactory method of treating severe chronic lymphedema.

Solitary Pulmonary Masses

George E. Dimond, M.D. and
G. Thomas McKean, M.D.
Veterans Hospital, Dearborn, Michigan

Solitary pulmonary masses, circumscribed tumors of the lungs, and pulmonary "coin" lesions are clinical terms commonly used to describe a group of diseases of the chest that have many roentgenographic features in common, but have a highly variable etiology. They can be arbitrarily defined as solid lesions of pulmonary origin without surrounding infiltration. Many authors, however, include masses of mediastinal, pleural, or extrathoracic origin which clinically appear to arise in the lung.

The recent literature contains reports of 223 such masses that have been positively identified by exploratory thoracotomy. Approximately one-third were turberculomas, one-third were bronchogenic carcinomas, and one-third were comprised of a wide variety of miscellaneous conditions. Unquestionably, the percentage of bronchogenic carcinomas would have been considerably higher if only masses of pulmonary origin were considered. The most common types of masses in the miscellaneous group were fluid-filled bronchogenic cysts and benign tumors of the lung. All authors were unanimous in pointing out the difficulties of exact preoperative diagnosis and in urging exploratory thoracotomy without undue delay.

The authors' own experience is similar. Thirty-four such masses have been seen in three years. Sixteen exploratory thoracotomies yielded bronchogenic carcinoma in eight; four metastatic malignancies; tuberculoma, abscess, lipoma and aneurysm of the left ventricle, each one. Of those not explored, bronchogenic carcinoma was widespread in eight, tuberculosis stable in three, coccidioidomycosis known in four, Hodgkin's disease proven in two, and one hamartoma found in a moribund patient.

The authors conclude that solitary pulmonary masses should be examined by thoracotomy unless the mass can be exactly identified promptly otherwise. The high incidence of bronchogenic carcinoma in these lesions is the justification.

Detection of Lymph Node Involvement in Neoplastic Disease

Richard B. Berlin, M.D., and
Osborne A. Brines, M.D.
Wayne University College of Medicine
and Receiving Hospital
Detroit, Michigan

The importance of meticulous examination of surgical specimens for the detection of involved

(Continued on Page 318)

Beacon or Torch

Eight months ago, your Council approved the appointment of a special committee to bring us the latest authentic information on all phases of fission energy, as well as atomic, bacteriological and chemical warfare. This issue of THE JOURNAL of the Michigan State Medical Society is dedicated to their efforts. We are especially indebted to those men of science outside our own profession who serve on this committee and who contributed to the Atomic Number. For the present, the Committee has confined its efforts to the destructive forces of atomic energy and the best ways of reducing casualties. It is a sad commentary, to the state of a world torn by conflicting ideologies and hates, that we should first deal with the destructive horrors of nuclear energy rather than the constructive phases more becoming to men of research. Only time can answer the inquiry as to whether science has created a beacon to health and longevity, or a torch for the eventual destruction of the human race.

The people of this country are exposed to a real danger. No sane person would minimize it. There are holes in our radar defense large enough to expose any of our large, thickly populated centers. In view of this danger, we believe the medical profession is charged with the duty of not only perfecting the best methods of rendering aid in case of disaster, but of telling our citizens how they can best protect themselves. This issue contains that information and should be filed as a quickly available reference.

As new emergencies confront the medical profession, our gratitude increases to those who conceived and initiated the CAP (Co-operation with the American People) plan in Michigan. We have here an organization that can be set in motion on short notice. Today, more than ever before, it is necessary that we keep our patients informed as to what constitutes good legislation and what is conceived to promote further socialization. We must keep our friends and patients aware of the qualifications of those who would represent us

on the political front. Have you noticed the pictures depicting hate and distrust on the faces of those who represent the various nations surrounding the United Nations' conference tables? Lacking all details we are in no position to judge who is right or who is wrong, but we do know that such an atmosphere plus the A or H bomb jeopardizes all of humanity.

In our planning, we have been accused of contributing to nervous tension and psychosis. We believe the American people have always displayed a splendid courage and, on the contrary, will gain confidence and stability in planning for any eventuality. We believe their faith in God and freedom, as we have come to know it, will eventually activate the Atlantic Pact to the point where all true democracies can be assured their rights will be protected. If the democracies will first become adjusted among themselves, then we can expect mounting resentment to the tyrannies of communism sufficient to bring about revolutionary reforms in those countries. This, then, becomes our beacon of hope, and may the torch of annihilation never be lighted!

File this issue of JMSMS.

File subsequent issues of JMSMS.

File the MSMS Secretary's Letters.

Give freely of your time to your professional organizations.

WE ARE OUR NEIGHBOR'S KEEPER.

Grateful acknowledgment is hereby made to various County Society Civil Defense Committees, the Michigan State Medical Society Civil Defense Committee, the Special Committee on Atomic and Allied Procedures, and all others who have actively contributed.

C E Umphrey M D

President, Michigan State Medical Society

President's Message



Editorial

LEST WE FORGET

WITH an all-out defense effort to avert World War III, or to be prepared in case it comes, all are ready to make necessary sacrifices. The American people have always done their utmost in time of war and always will, but when they give up some cherished rights and privileges, they hope to have them restored. The pressure of major war effort, however, does not warrant trends to socialism which have definitely been repudiated.

Many of our doctors have congratulated themselves upon the results of the last election in which imposing arrays of left wingers, or active socializers, were removed from public office. The President's two attempts to establish Oscar Ewing in a Department of Health and Welfare were defeated. The threat to socialism and socialized medicine presumably was averted!

The President sent two reports to Congress in January, 1951, in which he stated:

"First, we cannot afford in the immediate future to devote as large a part of our resources to the improvement of health services and facilities as we had planned to do in normal peacetime. But we cannot maintain a sound base for whatever military mobilization may be needed in the months or years ahead, if we let sickness and inadequate health standards continue to take their heavy toll. We must devote somewhat more of our resources toward improving the health of the general public. Whether the children of today will be the soldiers or civilians of tomorow, they must grow to a strong and healthy maturity. It is not enough to train people as workers—or soldiers. They have to be healthy enough to get a job and do it effectively. Right now, sickness is keeping about a million workers off the job every day. Right now, failure to meet health standards is making about a quarter of our young men unavailable for military service. During World War II, about six million men were rejected by the armed services for physical or mental disabilities."

He further states:

"We cannot afford this waste of manpower, our most vital resource. As a first step, we must obtain more doctors, more dentists, and more nurses. The growing needs of the armed forces, piled on top of civilian needs, threaten the most dangerous shortages unless prompt action is taken by the Congress."

In his Budget message (The Defense Budget of 71.6 Billions of Dollars), he proposed a new payroll tax as follows: "Receipts and expenditures under the proposed medical care insurance program would be handled through a trust account paralleling the procedures for old-age and survivors' insurance. A period of preparation will be required to set up the health insurance system. I am proposing that in the meantime a small payroll tax of one quarter of one per cent each on employes and employers be levied to provide for initial expenses."

Section 23, S. 1, authorizes the President to socialize medical care and hospitalization for a large segment of the population by providing for the physical and mental rehabilitation by the Federal Government of registrants who are rejected for failure to meet standards for physical and mental fitness prescribed by the Secretary of Defense. This is a request by the Executive Department for vast new powers and federal expenditures in an area only remotely connected with defense. Here, in the guise of a national defense measure, is a new health proposal that surpasses, in the extent to which it nationalizes medicine, even the compulsory health insurance bills that have been introduced for so many years.

This direct quotation from the President's proposals to Congress is sufficient evidence that the socializers are determined to bring about the socializing of medicine under any guise or schemes which they may use for their purpose, even taking advantage of our desperate need for national defense. Thank God for our CAP. We have planned well. This bit-by-bit legislation can be stopped.

SABOTAGE

THE CHIEF-OF-STAFF of one of the hospitals in Michigan, about 175 beds, became alarmed at the shortage of available beds for emergency and studied the cases in his hospital. Thirty-seven patients had been in more than two weeks. One individual had been there for many weeks, had an eight-hour daily pass, and used the hospital for sleeping and meals. An orthopedic patient had been held six weeks in order to be in the hospital for check-up x-rays when a change of cast was due. Many medical patients had complete run of

the hospital and grounds and only used their beds for sleeping at night. One diabetic patient had been in for weeks just to get an insulin injection once a day. An old man over ninety was hospitalized over the holidays so his children could be free to celebrate. This is just a few abuses discovered.

The Chief spoke to his staff at their meeting and within two hours, fourteen of these patients had been discharged. Abuse of this type, or neglect can effectively do damage to our hospitals. It can make beds so scarce that needy cases cannot get care. Also, it will dissipate the funds of Michigan Hospital Service and Michigan Medical Service, the Blue Cross-Blue Shield program in which our medical profession has had such a vital interest. Both are "our baby" and our responsibility. Exhausting "our" resources tends to dissipate the effectiveness of the one actual protection we have against socialized medicine.

We are making this report and inviting attention to this situation in accordance with instruction of The Council at its annual session in January, 1951. We believe most of these abuses were unintentional or thoughtless, but should be called to our members' attention. These are lapses which make "medical costs" excessive. Hospital costs are the highest they have ever been and are going higher. If the rates for hospital service protection go too high, they will be prohibitive, and our great voluntary movement will necessarily be curtailed, priced out of existence. Michigan Hospital Service is paying about three million dollars per month to hospitals now. Michigan Medical Service is also affected by this same abuse. It is paying more than one million dollars per month for patients' benefits. Thousands of people who could not have medical and hospital care otherwise, except at great sacrifice, are being protected. However, if by overutilization these two institutions are hurt, we are sabotaging and helping to destroy our one and only security and are defeating the profession's program for the better distribution of medical and health care to our patients.

Ask yourself, Doctor, *is this hospital service and medical care in the hospital absolutely necessary?*

MEDICAL EXAMINATIONS

MANY TIMES doctors are asked to make examinations of patients. Upon these reports, important decisions depend: the man's ability to return to work, his eligibility for benefits, the responsibility of industry, or the State, or insurance, to assume various obligations and payments often for months or years.

We believe most of our doctors enjoy making these examinations, do a very thorough job, and make their reports in such a manner that reviewing officers are able to picture the exact condition of the patient and to render a judgment as to action which should be taken. Such reports have been made for several years to the Veterans Administration. The future life of the veteran has been involved in most cases. His benefits—what the government owes him as a former soldier—are dependent on the clarity of the report given.

The State Department of Social Welfare will be asking us to make such examinations and reports, and much will depend upon their clarity.

For some years, the Department has had the responsibility of old-age assistance for needy persons over sixty-five years of age. Also aid to dependent children who are under sixteen years of age (or under eighteen years of age if regularly attending schools), who have been deprived of parental support by death, continued absence from the home or incapacity of a parent. The Department also is responsible for aid to the blind who are over sixteen years of age. Beginning this year the Department will be responsible for aid to the disabled, an entirely new category, number unknown, of needy persons over 18 years of age who are totally and permanently disabled; that is, bedfast or homebound, and unable without assistance to carry on the activities essential to daily living.

Detailed reports of examinations for these persons should picture the exact condition so that the reviewing officer may understand the needs, be able to classify the person and determine the State's responsibility. Each one of these may involve enormous expense to the State, sometimes for life, including food, clothing, housing, medical care, custodial care and actual assistance in performing the daily functions of living.

In most of these groups when the State requires such an examination, it will pay the physician. We are sure our members will consider that this service is not only a part of their medical service but is a part of their citizen's duty to their patients, to themselves and to the State, and will make their reports promptly, completely and accurately.

NEW COUNCILLOR



GILBERT BELL SALTONSTALL, M.D., Charlevoix, Michigan, has been appointed Councillor of the 9th District to fill out the unexpired term of Ellery A. Oakes, M.D., resigned.

Dr. Oakes has given many years of faithful service to the Michigan State Medical Society, in the House of Delegates as its Speaker and on the Council.

Dr. Saltonstall has also devoted many years as a County Society officer, as a committee man of Michigan State Medical Society Committees and as chairman of the County Secretary and Editor's Association.

Dr. Saltonstall was born in Cheboygan, Michigan, May 7, 1908. He has his B.S. Degree from the University of Michigan, 1931, and M.D., 1933. He interned at Grace Hospital, Detroit, Michigan, and received the Michigan State Medical Society Fellowship on Postgraduate Education in 1942.

He is a member of the American Academy of General Practice, K of P, B.P.O.E., Phi Mu Alpha, Alpha Kappa Kappa. He is Chief of Staff of Charlevoix Hospital.

THE ATOM IN WAR AND PEACE

THE COUNCIL of the Michigan State Medical Society is happy to present to our members a number of THE JOURNAL devoted to the atom. We have selected this, the March number, which for several years has been devoted to cancer, for the reason that radiant energy has been one of our mainstays in the fight against cancer and the two subjects seemed naturally to come together.

We have been amazed at the amount of material available for this unique number of THE JOURNAL. We are presenting about thirteen papers bearing upon the subject, and have curtailed the material on cancer, which will be published later.

Atomic Energy has been a subject of conjecture and study for many years. When the Editor was in school, we were taught that the atom was the ultimate particle of matter, and could not be divided. Soon, however, the Curies demonstrated that certain atomic material seemed to disintegrate, giving off energy and radiant activity.

We remember reading a very challenging story many years ago, author and book long since forgotten, which pictured what would sometime be common—propulsion of vehicles by controlled atomic fission. Jules Verne, one remembers, predicted the submarine, the incandescent light, and many other devices now common.

The Atomic Age is now upon us. We have used atom explosion for destruction in war. We must use it for beneficial purposes. The University of Michigan has undertaken for that purpose, the Phoenix Project, as a memorial to its alumni who served and sacrificed. At Ann Arbor, October 2, 1950, the University asked an endowment of six and a half million dollars for the study of atomic energy in industrial and private use—social, economic and ethical. One of the early contributions was from General Motors Company, granting one and a half million dollars for a directed study of uses of atomic information in industry. The Phoenix Project is growing and deserves every support individuals and others may give it.

Late in January, 1951, a considerable grant was made to the Dow Chemical Company and the Detroit Edison Company to determine the feasibility of using atomic energy to develop electrical power. Other atomic possibilities are legion and, if properly controlled, promise great good, as well as terrible defense from attack.*

*Recent announcements indicate work on an atom propelled airplane.

ATOMIC WAR AND DEFENSE

THIS ISSUE of THE JOURNAL of the Michigan State Medical Society is devoted to a general and current review of the medical problems associated with the contemporary methods of waging war. It is obvious that, for reasons of national security, little will appear in this symposium that is new or startling in the realm of atomic bombing, and chemical, radiological, and bacterial warfare, although certain members of the Committee on Atomic and Allied Procedures are well aware of the most recent developments. It is hoped, however, that this particular issue will prove useful enough to be filed carefully in the event this knowledge is needed. All should once again be reminded

that with the perfection of the long range bomber, complacency has ceased to exist on the globe.

The composition of this committee should be of interest to the physicians of Michigan and to others who read this issue. Essentially half of the members are physicians and the remainder are physicists, chemists, biophysicists, and bacteriologists. All of the members have had training or experience in the newer warfare in some phase, and some have been present at the demonstrations and experiments at Los Alamos, Bikini, Camp Detrick and Eniwetok. This committee should be of value to various other committees, or groups, in that it constitutes authoritative counsel for certain scientific problems within its scope.

The paper by Macon Miller may savor of technical detail to such a degree that the average physician, with a dim knowledge of nuclear physics, may not appreciate the excellence of its explanation, but should gain much from it. The committee felt that the incorporation of a paper of this character was required to make the symposium complete.

Dr. Grebe's paper speaks of the perplexing and highly successful technique of psychological warfare, a matter which we now in a minor sense experience with the reading of each morning paper, or the rendition of each radio news broadcast, a technique that can reduce civilian defense measures, no matter how much they might anticipate, to a chaotic failure. Members of the Society are urged to call the attention of their local civilian defense authorities to this excellent and pointed article.

Similarly, Dr. Corrigan's résumé on the detection of radio activity may serve as a guide to local defense organizations, and his brief account of the grim and insidious possibilities of radiological warfare deserves close attention.

During the last three months, the progress of the mass blood-typing program in Jackson has aroused considerable interest in the lay press and also among local defense groups and physicians. The accomplishment of Drs. Schmidt and Ahronheim is the more remarkable in view of the fact that their project was in full swing after a warning period of less than six days. The editorial comment merely is the consensus at the present time of national groups, this Committee, and the Blood Bank Committee of the Michigan Pathological Society. It is not appended with the idea of minimizing the value of an extremely valuable experiment.

While it is exceedingly difficult for Dr. Kaump and his collaborators to determine the exact amount of blood and plasma desirable in the event of catastrophic bombing, the figures quoted, nevertheless, represent the opinion of a number of informed individuals. Since this paper is concerned with immediate measures, it does not emphasize the need of whole blood at a later date for the treatment of possible aplastic anemias.

In the articles dealing with blood and blood plasma substitutes, it is interesting to note the strides taken by this state in contrast to many others, with the possible exception of those in the extreme West.

In the near future, the committee will offer articles on the present status of chemical and bacteriological warfare. In the case of the former, informed sources apparently fear only the use of the nerve gases, the isopropylfluorophosphates. Pharmacologically, such agents produce a flaccid paralysis by their action on the myoneural junction closely simulating nicotine poisoning and in a measure relieved by the use of atropine. How much can be disclosed for the purposes of civilian defense in the case of the various bacterial weapons can only be a cautious guess, since this phase is so closely hedged by the interests of national security.

A. A. Humphrey, M.D.
Committee on Atomic and Allied Procedures.

COMMITTEE ON ATOMIC AND ALLIED PROCEDURES

A. A. Humphrey, M.D., Chairman, Leila Y. Post. Montgomery Hospital, Battle Creek.
H. F. Becker, M.D., 1202 Central Tower, Battle Creek.
J. E. Cole, M.D., 344 Glendale Avenue, Detroit.
K. H. Corrigan, Ph.D., Harper Hospital, Detroit.
L. E. Holly, M.D., 878 Second St., Muskegon.
Traian Leucutia, M.D., 10 Peterboro, Detroit.
Howard B. Lewis, Ph.D., University of Michigan Medical School, Ann Arbor.
A. B. McGraw, M.D., 2799 W. Grand Blvd., Detroit.
O. A. Brines, M.D., 1512 St. Antoine, Detroit.
John J. Grebe, Research Councilor, Dow Chemical Co., Midland.
Laurence L. Quill, Professor of Chemistry, Kedzie Chemistry Laboratory, Michigan State College, East Lansing.
W. L. Mallmann, Department of Bacteriology, Michigan State College, East Lansing.
W. J. Nungester, Department of Bacteriology, Hygienic Laboratory, University of Michigan, Ann Arbor.

Especial appreciation is due Dr. A. A. Humphrey and Dr. Traian Leucutia for editorial assistance in preparing this edition of THE JOURNAL.

Annual Session of the Council

January 19-20, 1951

HIGHLIGHTS OF THE COUNCIL

- Auditors' (Ernst and Ernst) report for 1950, and budgets for 1951 approved. See pages 314-317.
- Annual Reports of Secretary, Treasurer, Editor, and of three Standing Committees of The Council accepted.
- Secretary L. Fernald Foster, M.D., Treasurer, A. S. Brunk, M.D., and Editor Wilfrid Haughey, M.D., re-elected.
- Progress report on Michigan Medical Service presented by R. L. Novy, M.D., Detroit, President.
- Progress report on Michigan Hospital Service received from Wm. S. McNary, Executive Vice President, Detroit.
- Official report of MSMS Delegates to American Medical Association on Cleveland Clinical Session was accepted.
- Committee reports presented by: Postgraduate Medical Education Committee, Committee on Venereal Disease Control, Preventive Medicine Committee, Legislative Committee, Maternal Mortality Study (sub-committee of Maternal Health Committee), Rural Medical Service Committee, Emergency Medical Service Committee, Permanent Conference Committee, Committee to Study Veterans Facility at Grand Rapids, and Committee of Ophthalmologists.
- Monthly reports of President C. E. Umphrey, M.D., Detroit, President Elect O. O. Beck, M.D., Birmingham, Secretary L. Fernald Foster, M.D., Bay City, Rheumatic Fever Control Co-ordinator Leon DeVel, M.D., Grand Rapids, Legal Counsel J. J. Herbert, Manistique, and Public Relations Counsel H. W. Brenneman, Lansing, accepted.
- Annual reports of individual Councilors on condition of profession in each District were presented.
- Brochure and form letters to be used in the Invitational Membership Campaign were presented and approved.
- Final report of Special Committee to Study Veterans Facility at Grand Rapids, as requested by Michigan Civil Service Commission, was approved and referred to Civil Service Commission.
- Report on medical procurement presented by Grover C. Penberthy, M.D., Detroit, Chairman Michigan State Volunteer Advisory Committee, Selective Service System, and C. I. Owen, M.D., Detroit Medical Advisor to Selective Service.
- John W. Cline, M.D., San Francisco, incoming President of the American Medical Association, invited to speak at 1951 MSMS Annual Session in Grand Rapids.
- Silver Anniversary of Woman's Auxiliary to Michigan State Medical Society to be given special recognition in Grand Rapids during MSMS Annual Session; also special features in April, 1951, JMSMS.
- Roster of members, with addresses, to be published in 1951.
- Ralph A. Johnson, M.D., Detroit, elected sixth Delegate to AMA House of Delegates.
- G. B. Saltonstall, M.D., Charlevoix, appointed as Councilor of the Ninth District for term ending September, 1952, taking the place left vacant by resignation of E. A. Oakes, M.D., Manistee.
- A plan of postpayment for medical care of welfare recipients in certain categories presented by L. G. Christian, M.D., Lansing, Chairman of the Michigan Social Welfare Commission, Milton Shaw, M.D., Lansing, Advisor to Social Welfare Commission, Director W. J. Maxey and Miss Ruth Bowen of the Welfare Department.
- Mutual problems, (eleven items), discussed with Michigan Health Commissioner A. E. Heustis, M.D.
- Problem of overutilization of hospital services for non-emergency cases, especially covering Blue Cross-Blue Shield subscribers, was discussed and President C. E. Umphrey, M.D., was instructed to

write every MSMS member and the superintendents of all Michigan's hospitals outlining this problem and explaining the threat to the future of Blue Cross-Blue Shield.

- Michigan's Foremost Family Physician: techniques in the selection of the physician to receive this annual reward were developed by The Council.
- Appointments: Traian Leucutia, M.D., Detroit, to represent MSMS at the Annual Conference of Teachers of Clinical Radiology, Chicago, February 10; L. Fernald Foster, M.D., Bay City, to represent MSMS at the National Conference on Medical Service in Chicago, February 11; J. M. Sheldon, M.D., Ann Arbor, to represent MSMS at the Associated State Postgraduate Committee meeting in Chicago, February 10-11; R. W. Teed, M.D., Ann Arbor, to represent MSMS on the Student American Medical Association advisory council in the University of Michigan, and William Bromme, M.D., Detroit, to represent MSMS on the SAMA advisory council in Wayne University.

SECRETARY'S ANNUAL REPORT—1950

To the Council of the MSMS:

I herewith submit the report of the Secretary for the year 1950.

Membership

The Michigan State Medical Society membership for 1950 showed a total of 5,114 members, including 244 Emeritus and Life members, 27 Retired members and 112 Associate members. The total paid membership was 4,781 with net dues of $73,136.82. The 1950 membership was at the highest peak in the history of the society. The number of members with unpaid dues for 1950 was 68.

MEMBERSHIP RECORD—1950

County Medical Society	PAID		SPECIAL MEMBERS				DEATHS		NET MEMBERSHIP		1950		UNPAID	
	1949	1950	Emer.	Life	Retd.	Assoc.	1949	1950	1949	1950	Gain	Loss	1949	1950
Allegan	20	21	—	3	—	—	—	—	23	24	1	—	—	2
Alpena, Alcona, Presque Isle	21	23	—	2	—	—	—	1	22	24	2	—	—	—
Barry	11	12	—	3	—	—	1	—	12	15	3	—	—	—
Bay, Arenac, Iosco	69	70	3	5	2	—	1	2	77	78	1	—	1	—
Berrien	74	76	1	1	1	1	1	6	75	74	—	1	2	6
Branch	19	22	—	1	—	—	—	—	20	23	3	—	—	—
Calhoun	101	97	—	11	1	7	2	2	109	114	5	—	7	—
Cass	10	10	—	—	—	—	—	—	10	10	—	—	1	1
Chippewa-Mackinac	23	25	1	—	1	—	—	1	24	26	2	—	1	—
Clinton	16	15	—	—	1	—	—	1	16	15	—	1	—	—
Delta-Schoolcraft	22	25	2	—	—	—	—	1	24	26	2	—	3	—
Dickinson-Iron	18	20	—	—	—	1	—	—	18	21	3	—	1	—
Eaton	16	19	—	—	—	—	—	1	16	18	2	—	—	—
Genesee	187	187	3	17	2	—	1	5	201	204	4	—	2	1
Gogebic	19	20	—	—	—	—	—	—	19	20	1	—	—	2
Gd. Traverse, Leelanau, Benzie	46	42	—	—	—	—	—	4	47	38	—	9	2	1
Gratiot, Isabella, Clare	39	37	1	1	—	—	1	1	40	38	—	2	3	—
Hillsdale	19	17	—	3	—	—	1	1	20	19	—	1	2	—
Houghton, Baraga, Keweenaw	28	28	4	2	—	—	2	2	31	32	1	—	—	—
Huron	15	13	—	1	—	—	—	—	16	14	—	2	1	—
Ingham	172	162	1	5	6	1	4	3	174	172	—	2	—	—
Ionia-Montcalm	36	35	—	3	—	—	—	—	39	38	—	1	—	—
Jackson	102	101	5	6	—	1	2	—	108	113	5	—	—	—
Kalamazoo	136	139	3	5	2	—	4	4	143	145	2	—	—	1
Kent	281	274	5	14	2	6	5	5	299	296	—	3	3	9
Lapeer	13	13	3	—	—	—	1	—	15	16	1	—	1	—
Lenawee	41	40	2	1	—	—	2	1	43	42	—	1	1	2
Livingston	18	18	—	—	—	—	—	1	18	17	—	1	2	3
Luce	6	5	2	—	—	—	—	—	7	7	—	—	—	—
Macomb	48	51	—	1	—	—	—	—	49	52	3	—	—	1
Manistee	13	11	1	—	1	—	1	—	13	13	—	—	1	—
Marquette-Alger	42	39	—	2	—	—	1	1	43	40	—	3	—	1
Mason	12	13	—	—	—	—	2	2	10	11	1	—	—	1
Mecosta, Osceola, Lake	15	14	1	1	—	—	—	—	17	16	—	1	—	—
Menominee	17	15	1	—	—	—	—	—	18	16	—	2	—	—
Midland	21	23	—	—	—	—	—	—	21	23	2	—	—	—
Monroe	37	36	2	—	—	—	—	1	39	37	—	2	—	2
Muskegon	94	83	1	4	—	3	4	4	93	87	—	6	3	—
Newaygo	10	10	—	—	—	—	—	—	10	10	—	—	—	—
North Central Counties	20	23	—	—	1	—	1	1	20	23	3	—	—	1
Northern Michigan	32	35	—	—	—	—	1	2	32	33	1	—	1	1
Oakland	184	211	1	4	—	—	2	—	187	216	29	—	3	1
Oceana	8	7	2	—	—	1	1	—	10	10	—	—	—	—
Ontonagon	6	4	—	—	—	—	1	—	5	4	—	1	—	—
Ottawa	34	38	1	1	—	1	—	1	38	40	2	—	—	—
Saginaw	109	114	3	6	3	—	1	1	117	125	8	—	3	1
St. Clair	55	53	2	—	2	—	4	1	51	56	5	—	1	—
St. Joseph	25	24	1	—	—	—	—	—	25	25	—	—	—	2
Sanilac	12	12	—	—	—	—	—	—	12	12	—	—	—	—
Shiawassee	21	23	2	—	—	—	1	1	21	24	3	—	2	1
Tuscola	22	21	1	3	—	—	—	1	23	24	1	—	—	—
Van Buren	21	18	4	—	1	—	—	—	25	23	—	2	—	—
Washtenaw	174	183	3	7	—	87	3	1	226	279	53	—	23	1
Wayne	2,157	2,165	27	42	1	3	34	19	2,179	2,219	40	—	67	25
Wexford-Missaukee	22	17	—	—	—	—	1	—	21	17	—	4	—	2
TOTALS	4,810	4,809	89	155	27	112	86	78	4,971	5,114	189	45	137	68

Deaths During 1950

We regretfully record the deaths of the following seventy-eight members during 1950.

Alpena-Alcona-Presque Isle—George F. Lister, M.D., Hillman.

Bay-Arenac-Iosco—Royston Earle Scrafford, M.D., Bay City, George C. Stewart, M.D., Bay City.

Berrien—F. W. Brown, M.D., Watervliet, Nathanial A. Herring, M.D., Niles, Ralph B. Howard, M.D., Benton Harbor, Harry Kok, M.D., Benton Harbor, William W. Schairer, M.D., Coloma, Theron G. Yeomans, M.D., St. Joseph.

Calhoun—Lydia Jesperson, M.D., Battle Creek, George W. Schlem, M.D., Battle Creek.

Chippewa-Mackinac—James G. Blain, M.D., Sault Ste. Marie.

Clinton—Guy H. Frace, M.D., St. Johns.

Delta-Schoolcraft—Thomas J. Hutton, M.D., Powers.

Eaton—Franklin Wesley Sassaman, M.D., Charlotte.

Genesee—H. L. Marsh, M.D., Flint, C. C. Probert, M.D., Flint, Herbert E. Randall, M.D., Flint, John W. Evers, M.D., Flint, Earle B. Guile, M.D., Flint.

Grand Traverse-Leelanau-Benzie—Jay J. Brownson, M.D., Kingsley, James W. Gauntlett, M.D., Traverse City, Floyd Wayne Clements, M.D., Interlocken, Harry B. Kyselka, M.D., Traverse City.

Gratiot-Isabella-Clare—C. M. Baskerville, M.D., Mt. Pleasant.

Hillsdale—W. E. Alleger, M.D., Pittsford.

Houghton-Baraga-Keeweenaw — Herman L. Sarvela, M.D., Hancock, Percy H. Willson, M.D., Chassell.

Ingham—W. J. Cameron, M.D., Lansing, Hewitt M. Smith, M.D., Lansing, Dana M. Snell, M.D., Lansing.

Kalamazoo—Jerome F. Berry, M.D., Kalamazoo, K. L. Burt, M.D., Kalamazoo, John B. Jackson, M.D., Kalamazoo, Thomas Van Urk, M.D., Kalamazoo.

Kent—Walter P. Keilhorn, M.D., Grandville, John Kremer, M.D., Grand Rapids, Simeon LeRoy, M.D., Grand Rapids, Archibald Blythe Thompson, M.D., Grand Rapids, Llewellyn G. Wedgewood, M.D., Grandville.

Lenawee—F. A. Howland, M.D., Adrian.

Livingston—Edward D. Finch, M.D., Howell.

Marquette-Alger—Nelson J. Robbins, M.D., Negaunee.

Mason—Roy C. Lintner, M.D., Ludington, Robert Redvers Scott, M.D., Scottville.

Monroe—Henry Lehr Meck, M.D., Dundee.

Muskegon—Robert J. Douglas, M.D., Muskegon, Charles T. Eckerman, M.D., Muskegon, Edward O. Foss, M.D., Muskegon, Frank W. Hannum, M.D., Muskegon.

North Central Counties—Robert Jay Beeby, M.D., West Branch.

Northern Michigan—Willis Earle Chapman, M.D., Cheboygan, J. H. R. Gervers, M.D., Bellaire.

Ottawa—William J. Presley, M.D., Grand Haven.

Saginaw—Aaron C. Button, M.D., Saginaw.

St. Clair—A. B. Armsbury, M.D., Marine City.

Shiawassee—Guerdon D. Greenway, M.D., Owosso.

Tuscola—Annie Stevens Rundell, M.D., Vassar.

Washtenaw—John L. Gates, M.D., Ann Arbor.

Wayne—Joseph H. Andries, M.D., Detroit, Charles James Barone, M.D., Highland Park, Frederick G. Buesser, M.D., Detroit, Ralph Dawson, M.D., Detroit, George M. Denis, M.D., Detroit, Myron D. Jacoby, M.D., Detroit, Julius P. Jaeger, M.D., Detroit, Frederick C. Kidner, M.D., Detroit, Martin E. Kohn, M.D., Detroit, P. L. Ledwidge, M.D., Detroit, James A. Moore, M.D., Detroit, George M. Murray, M.D., Detroit, Heinrich A. Reye, M.D., Detroit, Burt R. Shurly, M.D., Detroit, Raymond N. Slate, M.D., Detroit, James A. Smith, M.D., Detroit, Bela T. Szappanyos, M.D., Detroit, Marcus R. Van Baalen, M.D., Detroit, George H. Voelkner, M.D., Detroit.

Journal

The following information relative to THE JOURNAL is found in the annual audit report of Ernst and Ernst:

Income was $56,443.56 which is $1,283.56 over the tentative budget for 1950.

Expenses were $55,432.54 which were $272.54 over the budgetary estimate.

This indicated a net JOURNAL income of $1,011.02.

THE JOURNAL of the Michigan State Medical Society has been published each month under the direction of the Publication Committee of the Michigan State Medical Society. THE JOURNAL has continued to follow the policy, not only of presenting outstanding scientific papers and especially the papers presented at both the Annual Session in September and the Michigan Postgraduate Clinical Institute in March but many manuscripts presented at local societies and others of advanced scientific attainment.

THE JOURNAL has published material to keep the membership informed concerning the socio-economic problems of medicine and has opposed the program for national socialism. The editorial policy has been directed chiefly to that issue.

JMSMS has continued the policy of making the covers really distinctive in that they emphasize some of the major activities of the Society.

Covers have been devoted to Cancer, Tuberculosis, Heart Disease, Michigan Medical Service, Michigan Health Council, Rheumatic Fever and others.

Since 1902, when THE JOURNAL was established, its first and most important function has been to carry to our members matters of special interest to them, both scientific and economic. The Publication Committee has endeavored to continue that program.

Finances

An audit of the books of the Society was completed by Ernst and Ernst, certified public accountants as of December 22, 1950. This has been submitted to the Finance Committee for study and is available to any member of the society for perusal at the Executive office, 2020 Olds Tower, Lansing, Michigan.

A brief summary of the audit produces the following information:

Assets:	
Cash	$ 57,029.69
Accounts Receivable	10,020.19
Securities and Deferred Charges	94,040.10
Total	$161,089.98
Liabilities:	
Accounts Payable	$ 10,133.04
Unearned Income	9,220.00
Reserves	83,468.53
Surplus	58,268.41
Total	$161,089.98

From the Income and Expense statement we find that the total regular income of the Society for 1950 (to December 22) was $76,558.38 with total expenses of $76,093.56 indicating net expenses of $464.82.

A study of the Reserves of the Society as of December 22, 1950, indicates balances as follows:

Public Education (General Activities)	$54,137.07
Public Education (Special Activities)	5,463.91
Rheumatic Fever	23,467.55
Lecture Grant	400.00
Expenses during 1950 were as follows:	
Public Education (General Activities)	$62,237.76
Public Education (Special Activities)	43,436.09
Rheumatic Fever	19,293.58
Lecture Grant	000.00

1950 Annual Session

The 1950 Annual Session held in Detroit in September showed a total registration of 3,044.

The General Assembly type of program with daily dis-

cussion conferences was continued as in recent years and brought to Michigan thirty guest essayists.

The exhibit during this Annual Session was comprised of ninety Technical Exhibitors in ninety-nine spaces.

The policy of bringing to the Scientific Assembly out-of-state essayists of national and international reputation was continued and no expense was spared in making the meetings as interesting and instructive as possible. In spite of the rapidly rising costs of operation a modest gross profit before proration of salaries accrued to the society from the Annual Session.

To the ninety technical exhibitors, the registrants showed their usual appreciation and gave them very generous attention.

1950 House of Delegates

The House of Delegates, transacted the legislative business of the society with as much dispatch as possible consistent with thoughtful deliberation. Some of the highlights of the transactions of the House of Delegates were:

1. Adopted resolution of commendation to newspaper and magazine editors who are fighting socialism, re co-operation with the American Medical Association's National Education Campaign.

2. Eliminated assessment and set the MSMS dues for 1951 at $45.00.

3. Adopted Resolutions concerning:
   (a) Doctors of Medicine to exercise their right of franchise.
   (b) Support of the United Nations.
   (c) Increase in Number of Medical Graduates from Michigan medical schools.
   (d) Additional funds for Wayne University College of Medicine.
   (e) Change in the coroner system.
   (f) Study of nursing needs.
   (g) Development of simplified insurance reporting forms.
   (h) Information to public on atomic disaster.
   (i) Creation of Section on Gastroenterology and Proctology.

4. (a) Elected 11 members to Emeritus Membership.
   (b) Elected 23 members to Life Membership.
   (c) Elected 70 members to Associate Membership.
   (d) Elected 9 members to Retired Membership.
   (e) Elected two members to Honorary Membership.

5. Elected:
   (a) R. S. Breakey, M.D., Lansing, as Councilor of 2nd District (1955).
   (b) G. W. Slagle, M.D., Battle Creek, as Councilor of 3rd District (1955).
   (c) D. Bruce Wiley, M.D., Utica, as Councilor of 15th District (1955).
   (d) W. D. Barrett, M.D., Detroit, as Councilor of 16th District (1955).
   (e) W. D. Barrett, M.D., Detroit (1952), W. H. Huron, M.D., Iron Mountain (1952), R. L. Novy, M.D., Detroit (1952), as Delegates to the American Medical Association.
   (f) R. A. Johnson, M.D., Detroit (1952), R. H. Denham, M.D., Grand Rapids (1952), and C. I. Owen, M.D., Detroit (1952), as Alternate Delegates to the American Medical Association.
   (g) O. O. Beck, M.D., Birmingham, as President Elect.
   (h) R. H. Baker, M.D., Pontiac, as Speaker, House of Delegates.
   (i) J. E. Livesay, M.D., Flint, as Vice-Speaker, House of Delegates.

Michigan Postgraduate Clinical Institute and Heart and Rheumatic Fever Day

This fourth annual scientific institute held under the sponsorship of the Michigan State Medical Society in co-operation with the University of Michigan Medical School and Department of Postgraduate Medical Education, Wayne University College of Medicine, the Michigan Foundation for Medical and Health Education, Inc., and the Wayne County Medical Society was held in Detroit on March 8, 9, 10, 11, 1950.

This Institute designed to provide a high type scientific program, encourage Michigan physicians to prepare presentations and to publicize Michigan as a medical center this year featured twenty-eight Michigan doctors of medicine on the program and sixteen out of Michigan essayists.

The Institute was an outstanding success as evidenced by the fact that it produced a total registration of 1,875 with physicians present from Michigan, all nearby states and Canada.

County Secretaries—Public Relations Conference

A Conference of County Secretaries and other officers and members of component county groups was held in Detroit on January 22, 1950. This all-day conference was attended by over 200, including County Society Officers, County Society Public Relations Committee Chairmen, Members of the Michigan State Medical Society Council, Legislative Commmittee and Public Relations Committee and Officers of the Woman's Auxiliary.

This conference featured techniques of county society organization and operation, an exposition of the major activities of the State Society as related to the County Societies and information necessary for the development and maintenance of good public relations and public education. It featured talks by Congressmen John B. Bennett "England's Dilemma" and Gerald R. Ford "Americanism vs. Socialism" and included instruction in public speaking as related to County Medical Societies and information necessary for the continuation of good public relations and public education programs.

Committees

Limitation of time and space makes it impossible to detail in this report the activities of all the committees contributing to the many splendid programs of the State Society. The accomplishments of the committees of the Society were achieved at the expense of many hours of personal sacrifice on the part of the personnel of the various committees. During 1950 the seventy-one committees of the Michigan State Medical Society held a total of 103 meetings and practically every meeting was attended by one or both of your secretaries or a member of the executive office staff. A total of 630 fellow members in your State Medical Society gave freely of their time to attend these meetings and assist in the operational activities of the State Society. Too much commendation cannot be accorded the committee members who contributed their time and effort to develop and execute constructive programs—both scientific and economic—for the public welfare and to maintain the position of leadership of the Michigan State Medical Society in the field of progressive medical planning. During the year at the request of the AMA there was appointed a central committee on procurement and assignment with similar committees at the county level.

Rheumatic Fever Program

This Society-sponsored program of consultation and diagnosis in the field of Rheumatic Fever demonstrates the voluntary approach in the field of preventive medicine. The Michigan Society for Crippled Children and Adults, Inc., has continued its financial support of this program as has the Michigan Heart Association.

Also this year saw another organization, the Michigan Chapter of the Arthritis and Rheumatism Foundation, take an active financial interest in this Rheumatic Fever program.

We must emphasize that the Rheumatic Fever program is a voluntary effort of the medical profession of this State, aided financially by three other voluntary groups, to demonstrate its ability to conduct successful programs in the field of Public Health; that it is an educational effort both for physicians and the public; that it is being viewed with interest and sometimes envy by other groups and agencies; and that if it fails for lack of support by the individual physicians and county medical societies of the state the medical profession will be open to ridicule and further attempts to bring into the doctors' control the remaining modern procedures of medical practice—(viz. Rheumatism, Arthritis, Cerebral Palsy, Epilepsy, et al) will be impossible.

Contacts with Governmental Agencies

During 1950 your Society maintained active and friendly contacts with many governmental agencies at local county, state and national levels. Included in these contacts were:

The Governor of Michigan
The Michigan Crippled Children Commission
The State Board of Registration in Michigan
The Basic Science Board
The State Department of Public Instruction
The University of Michigan
The Michigan State College
Wayne University
Federal Hospital Survey and Construction Administration
The U.S. Senators and Congressmen from Michigan
The State Health Commissioner
The Michigan Mental Health Commission

Contacts with Non-Governmental Agencies

During 1950 the usual active contacts were maintained with many non-governmental agencies—especially

Michigan Medical Service (See recommendation No. 4)
Michigan Hospital Service (See recommendation No. 4)
Michigan Society for Crippled Children and Adults, Inc.
Michigan Health Council
The State Associations of
Nursing
Pharmacy
Dentistry
The State Tuberculosis Association
The Michigan Foundation for Medical and Health Education
The Michigan Heart Association
The Rural Health Conference and its 49 other groups
The National Foundation for Infantile Paralysis

National Associations contacted in various ways during the past year were:

American Cancer Society
American Red Cross—Particularly in connection with the Blood Bank Program
National Conference on Medical Service
Conference of Presidents and Other Officers of State Medical Associations
Associated State Postgraduate Committee

Society Activities

Many contacts were made during the year with members of the Society at Councilor District Meetings and County Society Meetings. These contacts were made by various members of the administrative personnel and were designed to publicize the various activities of the State Society and to allow a discussion of any question propounded by the members present. These meetings developed a critical discussion of the problems of the local and State organizations, problems of the public relations, the "dispractices" of medicine and other subjects bearing upon the development and maintenance of activities necessary to the establishment of medical practice on its deserving high plane.

Officers attended numerous Michigan county and district medical society meetings during the year and were honored by being invited to speak before state and county medical societies in other states. Their presentations before lay and civic organizations during the past twelve months—particularly after the inauguration of the "Get Out The Vote Campaign" totaled hundreds of appearances, with messages beamed to the theme that voluntary medicine has achieved the best results for the people's benefit and is to be preferred to a compulsory federally operated type of political foreign medicine.

Especially to be commended are the high quality scientific postgraduate "clinic days" being offered by county and district medical societies annually including: Bay, Calhoun, Grand Traverse, Genesee, Ingham, Jackson, Kent, St. Clair, and Wayne Counties and by the Upper Peninsula Medical Society.

Secretary's Letters

As part of the Society's general educational program for individual members and component County Societies there were issued during the year 1950, eleven Secretary's Letters, six to county secretaries and keymen and five to all members of the Michigan State Medical Society.

Office Personnel

During 1950 the Executive Office Personnel has discharged its many duties with extra loyalty and untiring effort.

The still-existing crowded and scattered condition of our Executive Offices is working an ever-increasing hardship on the whole office personnel and is not conducive to good morale and the greatest efficiency.

Public Relations

The public relations activity in the field of media communication of the Michigan State Medical Society is based on a concept that should be clearly understood. It is this: That proper development of the scientific information in the possession of the Michigan State Medical Society makes the value of this information such that it can be bartered for communication services of great value.

"Proper development" consists of translating and transforming the scientific information into radio programs, newspaper releases, television shows, motion pictures, etc., which will be interesting to the general public.

In any contemplation of the attached balance sheet* it is most important to keep in mind the fact that the figures indicated (with the exception of motion pictures) are for one year (1950) only. Using the past year as an example it is simple to see the enormous public relations values which will continue to accrue from monies expended months—and in the case of films, years ago.

For example: The production of the two MSMS films by a commercial film company resulted in the expenditure of $30,339.00 of medical society funds. This money was for the purpose of writing, casting, producing and distributing two films and was a "package deal" for the MSMS. The MSMS through an agreement with

*See Exhibit A.

the producers and themselves agreed to sell the rights for the film "To Your Health" to any of the several state medical societies so desiring rights for their particular states. As a result of this arrangement the MSMS has already recaptured $1,980.00 of original investment in the pictures.

A further projection of the motion pictures already produced shows that the MSMS can reasonably expect to receive at least $50,250.00 in direct benefits through the guarantee of the producers of the film that each of the two films would be shown in at least 400 theaters. Add to this another 150 theaters which could be expected to show the films during this or another year and you add another $22,550. Also keep in mind that other states may wish to purchase rights for the pictures thus reducing still further the original investment in motion picture public relations.

In consideration of the above the investment of $28,-359.00 in two 10-minute moving pictures the Michigan State Medical Society stands well to realizing a good will return of more than $152,550.00.

The above illustration of the possibilities in just one media of public relations brings to the front the excellent spirit of co-operation and co-ordination which has been engendered through the years between the medical profession and the professions allied with public relations media.

A famous definition of public relations says it is "doing a good job and then telling others about it." The medical profession in Michigan has done just that and in the tangible results of their efforts to make Michigan a healthier place in which to live have gained the confidence and trust of those whose job is "tell"—by print, the airlanes or films—of that progress.

Because the doctors of medicine in Michigan have pioneered in good public relations they today have tremendous strength of accomplishment and purpose with which to trade for the services of the editors, announcers and producers.

It was no secret that the medical profession in 1950 continued to do battle in the idealogical conflict which can mean life or death for a way of life that is summed up in a single word—American. Michigan's doctors of medicine did fight and win a great battle—the Good Citizenship Campaign.

Carried on as the focal point of the CAP (Co-operation with the American People) program the efforts to increase the activity and interests coincident with good citizenship made newsworthy headlines.

Here are some highlights of 1950's great campaign by Michigan's doctors of medicine:

On May 7, 1950, the Good Citizenship Campaign was launched. Medical representatives from every area of the state gathered to pool their efforts to plan and implement a program designed to get out the vote and to halt the epidemic of socialism that was spreading in Michigan. Each representative returned to his local area and carried the message of "Here's how it can be done." CAP Committees from each of the 55 county medical societies and from the Woman's Auxiliaries went to work to get people registered and then get out the vote. Reports showed that 97.4% of the doctors of medicine, 97.3% of their wives, and 90.4% of their medical assistants registered. "Lists of 20" were combed carefully to see that the 100,000 persons represented in these lists were registered. Headquarters personnel of 40 statewide business and professional organizations were individually contacted and urged to participate in the campaign. Each in its own way—by letters, bulletins, journals, special meetings, etc.—alerted its members. Supplies went out to their local groups—advertisements, counter display cards, imprinted napkin, window displays, reminder-to-vote cards, announcements, radio broadcast scripts, ideas for local promotion, etc. Many of these were originated by the MSMS office and turned over to these other organizations. The MSMS itself sent between 250,000 and 300,000 letters, postcards, etc.

Also included in the MSMS Statewide campaign were radio and television programs, the advertising campaign of the American Medical Association (involving a paid ad by the AMA) in every Michigan newspaper, tie-in ads by scores of other groups, and paid radio spot announcements on 26 radio stations, an active speakers' bureau that supplied speakers on every occasion requested. A final fighting speech outlining the stand of the MSMS in the election was presented over Radio Station WJR, Detroit.

Many county medical societies levied special local assessments to help in defraying the expenses of their efforts to "Get Out the Vote."

County Woman's Auxiliaries developed meetings of women's groups, carried on telephone campaigns, wrote thousands of letters.

On Election Day, house-to-house canvasses, phone committees, motor pools and 134,210 reminders-to-vote cards brought thousands of extra voters to the polls.

In addition to the above efforts, all of which were nonpartisan, many doctors and their wives—as individuals—joined in active work locally for one party or the other and campaigned vigorously. There is no way of knowing the total extent of this effort but the fact that activity by M.D.s was present in every section, city and hamlet of the state was obvious.

A record-breaking turnout at the Primary polls in September gave encouragement and the campaign was stepped up prior to the General Election on November 7.

On General election day the largest turnout of voters ever to go to the polls in a non-presidential election was recorded in Michigan.

In addition to its main force directed into the "Good Citizenship Campaign," the following CAP activities can be noted:

(a) Over 105,000 Michigan citizens have written personal letters or wired their Congressional representatives.

(b) Some 331 Michigan organizations have passed resolutions concerning socialized medicine.

(c) MSMS members have made over 1,753 speeches and talks to medical and lay audiences.

(d) Campaign materials totaling 3,684,750 have been distributed to doctors of medicine and citizens of Michigan.

(e) The Public Relations Field Secretaries (3) made personal calls on 1,592 doctors of medicine and lay persons, attended 352 meetings, organized 104 meetings, gave 319 speeches, traveled more than 60,163 miles in the performance of their assignments.

(f) Four CAP Bulletins totaling more than 20,000 copies were prepared and mailed to all MSMS members.

(g) Five legislative bulletins (5,105 copies) were mailed to key leaders.

(h) Seventeen District CAP meetings were held with innumerable County CAP Committee meetings called on the county level.

(i) Four large Conferences were organized and held, while MSMS representatives were active participants in eight national meetings.

(j) Hundreds of local meetings were held with ancillary groups interested in health problems.

(k) Aid and assistance were given numerous state and county medical societies throughout the United States.

(1) Four new MSMS publications were authorized and printed in the amount of 195,000 copies. The Speakers Manual, a 108-page compendium of information relative to speaking on socialized medicine, was sent to all state medical societies as well as to several thousand Michigan doctors and lay speakers.

Meanwhile the general public relations activity of the medical profession in Michigan continued. The "Tell Me, Doctor" program, nationally recognized as the only daily medical radio program in the United States, passed its 1,200th Broadcast. The two motion pictures developed by the MSMS—"Lucky Junior" and "To Your Health" were exhibited in 245 and 220 theaters, respectively. Rights to the latter named picture were sold to seven other state medical societies in the United

States for showing in theaters and loaned for showing to hundreds of small groups.

The Michigan Health Survey was completed and copies sent to 5,000 M.D. in Michigan. A weekly twenty-minute television program, "It's Your Life" over WXYZ-TV and other television stations in Michigan was developed. Support was given the Michigan Health

Where Do We Go From Here?

No question remains about the victory gained against socialism in the last election. It was definite if not complete. Across the country many of those whose names were closely linked with socialistic-sided legislation were removed from office.

PUBLIC RELATIONS BALANCE SHEET (1950)

PROGRAM	COST TO MSMS	SERVICES RENDERED	MONETARY VALUE OF SERVICES	TOTAL MONETARY VALUE OF PROGRAM
(*Radio*) "Tell Me Doctor"	$23,465.00	5-minute radio show 6 times weekly on average of $11.00 daily charge per station.	$89,232.00	
W.J.I.M.	None	15-minute sponsored show each Sunday (Average cost $22)	1,144.00	
U. of M. Weekly Series	None	30-minute weekly show over average of 5 stations in state. (Average cost $50)	13,000.00	
				$126,841.00
(*Television*) "It's Your Life"	None	½-hour TV show each week at cost of $700 weekly	$36,400.00	
Bud Lanker Show	None	½-hour TV Show at present under consideration. Cost approx. as above.	36,400.00	
				36,400.00
(*Newspaper space*) Being space devoted to news of MSMS	$ 320.37	News articles appearing in state papers. Approx. 450 clippings monthly x average of 10 inches per clipping x average open space rate of $3.36 per inch.	$181,440.00	
				181,760.37
(*Motion Pictures*)* "Lucky Junior" & "To Your Health"	$28,359.00	465 showings of two, 10-minute films $150 charge based on $15 per minute commercial rate charged in theaters.	$69,750.00	
				98,109.00
GRAND TOTAL				$449,110.37

*It is important to note that the grand total does not reflect the "Bud Lanker TV Show" as indicated above nor does it show the monetary values of the various exhibits at fairs, expositions, state and national magazine articles and the tie-in advertising coincident with the recent AMA national advertising campaign.

Council in its development of twenty-seven new Community Health Councils. A national conference on M.D.s' participation in Health Councils was held in Detroit, October 1, jointly sponsored by the AMA and the MSMS. The Michigan Rural Health Conference was held at Michigan State College, East Lansing, powerfully backed by the MSMS. Outstanding publicity was obtained in connection with the MSMS Annual Session and the Michigan Postgraduate Clinical Institute. During the 1950 Annual Session, in addition to hundreds of inches of newspaper space, 14 presentations were made over radio and television and before service clubs in the Wayne County area.

Recognition in national lay publications of the United States has been given the MSMS public relations program as well as in the professional public relations journals.

Too often but a few persons are credited with the success of a program such as that outlined above. Although there are a few persons under whose direction the program is carried out, yet the extent and success of the entire effort is due to the unswerving devotion of the entire membership of the MSMS to the principles that have made American Medicine great. From this devotion has come a united effort, only partially reflected in the statistics above, that will keep America great—and free.

But certain things were obvious. These were: That the proponents of socialism in America are prepared and committed to continue their efforts and that huge resources to influence public opinion are at their command;

That, upon the progress made in the next eighteen months, by either side, depends the fate of America; and that only if we falter and stumble in our new found strength will those who gave their time during this past year be betrayed.

Where do we go from here? That's up to you!

Foremost Family Physician Award

The fourth annual "Foremost Family Physician Award" was accorded Lunette I. Powers, M.D., of Muskegon, Michigan. The award will be officially made in March, 1951, on the occasion of the Michigan Postgraduate Clinical Institute.

Recommendations

As a result of a careful analysis of the Society's activities, the prospective economic conditions and the attitude of the public toward medical organizations, I respectfully submit the following recommendations for your consideration: That

1. Efforts be put forth to develop and maintain strong organizations (County Medical Societies) at the grass-roots level.
2. A cohesive organization be maintained at the State and County levels for the execution of effective Civil Defense programs.
3. The Medical organizations begin now the further development and continuation of the Good Citizenship Campaign for 1952.
4. The Medical profession give full co-operation to Blue Cross and Blue Shield in conducting informative meetings with lay groups throughout the state.
5. The Public Relations department revitalize the subject of Medical Associates in the light of the present national emergency.
6. The 1952 Secretaries' and Public Relations Conference be a school of instruction and training for Co-Medical Society Officers, and for Auxiliary Members, Medical Assistants and other key persons in the medical groups.

Your Secretary desires to express to the members of The Council his sincere appreciation for their fine personal and collective co-operation and the encouragement they have accorded him during 1950.

To the Executive Office personnel, to Mr. H. W. Brenneman, Public Relations Counsel, and assistant counsel Russell F. Staudacher, Mr. J. Joseph Herbert, Legal Counsel, and to Dr. Wilfrid Haughey, Editor, and Mr. Robert Roney, Assistant Executive Director, your Secretary is particularly grateful for their loyalty, willing application to their many tasks and many constructive suggestions. To Executive Director Mr. Wm. J. Burns, I wish to express a special appreciation for his wise counsel, helpful co-operation, and dynamic inspiration.

To all those who have aided so generously in the discharge of the duties of his office, your Secretary is most grateful.

Respectfully submitted,

L. Fernald Foster, M.D.
Secretary

TREASURER'S ANNUAL REPORT—1950

SECURITIES IN POSSESSION OF TREASURER
January 1, 1951

Description	Interest Rate	Maturity	Interest Paid to	Principal Amount	Cost	Market or Redemp. Prices 12-22-50	Market or Redemp. Prices 12-23-49	Income For Period
Bonds held for general purposes:								
United States Savings Bonds, Series G.....	2½%	6- 1-56	12- 1-50	$ 5,000.00	$ 5,000.00	$ 4,790.00	$ 4,760.00	$ 125.00
United States Savings Bonds, Series G.....	2½%	2- 1-57	8- 1-50	17,600.00	17,600.00	16,755.20	16,667.20	440.00
United States Savings Bonds, Series G.....	2½%	6- 1-57	12- 1-50	5,000.00	5,000.00	4,760.00	4,735.00	125.00
United States Savings Bonds, Series G.....	2½%	12- 1-57	12- 1-50	1,000.00	1,000.00	949.00	947.00	25.00
United States Savings Bonds, Series G.....	2½%	5- 1-58	11- 1-50	5,000.00	5,000.00	4,735.00	4,740.00	125.00
United States Savings Bonds, Series G.....	2½%	3- 1-60	9- 1-50	5,000.00	5,000.00	4,780.00	4,845.00	125.00
United States Savings Bonds, Series F.....	Note A	5- 1-53		2,500.00	2,285.00	2,285.00	2,217.50	67.50
United States Savings Bonds, Series F.....	Note A	7- 1-53		700.00	630.00	630.00	611.80	18.20
United States Savings Bonds, Series F.....	Note A	9- 1-53		500.00	450.00	450.00	437.00	13.00
United States Savings Bonds, Series F.....	Note A	12- 1-61		12,400.00	9,200.80	9,200.80	9,176.00	24.80
United States Savings Bonds, Series F.....	Note A	6- 1-62		6,000.00	4,440.00	4,440.00	Note B	
United States Treasury Bonds.....	2½%	12-15-72/67	12-15-50	8,000.00	8,218.09	8,055.00	8,302.50	187.17-C
Bonds held for Public Education Program:								
United States Savings Bonds, Series G.....	2½%	8- 1-58	8- 1-50	30,000.00	30,000.00	28,410.00	28,530.00	750.00
				$98,700.00	$93,823.89	$90,240.00	$85,969.00	$ 2,025.67

Note A—Bonds purchased on discount basis. They do not bear interest.

Note B—Bonds purchased in 1950.

Note C—Interest income after amortization of premium paid on purchase.

The changes in bonds during the year were as follows:

Balance at January 1, 1950 (stated at cost)		$89,273.22
ADDITIONS		
Purchase of United States Savings Bonds, Series F, maturing June 1, 1962 (Principal amount $6,000.00)	$4,440.00	
Increase in redemption value of United States Savings Bonds acquired in prior years	$123.50	
Less amortization of Bond Premium	12.83	
	$ 110.67	
		$ 4,550.67
BALANCE AT DECEMBER 22, 1950		$93,823.89

REPRESENTED BY—

Bonds for general purposes	$63,823.89
Bonds designated for Public Education Program	$30,000.00
	$93,823.89

INCOME

Cash Balance in Bank, at January 1, 1950	$ 5,128.13
Earnings on Bonds, (Jan. 1, 1950 to Jan. 1, 1951)	$ 1,915.00
TOTAL	$ 7,043.13

EXPENSE

Bank Charge, for safe-keeping of Bonds	$ 46.74	
Cost of purchasing United States Savings Bonds, Series F	$4,440.00	
TOTAL EXPENSE		$ 4,486.74
CASH BALANCE IN BANK (Jan. 1, 1951)		$ 2,556.39
CASH IN BANK (January 1, 1951)	$ 2,556.39	
MARKET, OR REDEMPTION PRICES OF ALL BONDS, (as of Jan. 1, 1951)	$90,240.00	
		$92,796.39

The actual cost of these bonds is $93,823.89, which includes the purchase price of interest-bearing bonds—and purchase price of bonds bought on a discount basis, plus adjusted increase in value of the latter group.

Respectfully submitted,

A. S. Brunk, M.D., Treasurer

EDITOR'S ANNUAL REPORT—1950

The Journal of the Michigan State Medical Society has completed forty-nine years of uninterrupted publication and has issued 588 numbers. It has been published continuously under the instruction of the Council and Publication Committee and has throughout its existence maintained a high standard of scientific material together with the very important general interest material necessary in a public service organization. Probably about one-third of The Journal space outside of advertising has been devoted one way or another to general interest material, editorials, news, committee reports, etc.

In its early years, The Journal ran from 80 to 100 pages per month, but in the last nine years the pages outside of the cover have numbered: 1942—1090; 1943—1022; 1944—1134; 1945—1414; 1946—1692; 1947—1478; 1948—1446; 1949—1566; 1950—1526. We are now averaging about 1500 pages per year. During the past year, 1950, we have continued the policy of trying to express to our membership the constructive thinking and programs outlined by our hardworking committees and the Council both editorially, and by selected items, news and reports. One hundred and twenty-nine original articles were used. Some papers had two or more authors so that 171 authors appeared in our pages last year. There were twelve repeats. Ninety-six death notices were published. Some of them included a number of very active society workers whose loss we shall regret as long as memory lasts. We published fifty-four editorials and sixty-two book reviews.

During the year, we have continued the policy of making the covers and the contents of the Journal so far as possible significant of the various major activities of the Society and its committees or sponsored groups.

January—The Postgraduate Institute had pictures of the outstanding speakers who came to Michigan to give us results of their attainments.

February—This number memorialized the Easter Seal Campaign for Crippled Children.

March—The Cancer Number listed the Cancer alphabet.

April—The Public Relations Number showed increasing benefits.

May—This number was a memorial to the University of Michigan Medical School Centennial with pictures of six of the organizing professors of Medicine. It was also a salute to our foremost family physician, Dr. John C. Maxwell.

June—10th Anniversary of Michigan Medical Service.

July—The Roster Number with the map of Michigan showing the number of members in each county organization.

August—Annual Session Number, showing all roads leading to Detroit.

September—Rheumatism and Arthritis Number. Two groups of hands. One Arthritic, the other the prayerful hands of the artist.

October—Michigan Foundation for Medical and Health Education, with pictures of certain outstanding officers and members.

November—Michigan Health Council.

December—The Heart Number. Two Hearts. The Michigan Heart Association, representing the heart of the people and the heart of medicine.

The outlines for 1951, which is our semi-centennial year, will again represent the many activities of Michigan medicine.

Respectfully submitted,

Wilfrid Haughey, M.D.
Editor

ERNST & ERNST REPORT

Executive Committee of the Council,
Michigan State Medical Society,
Lansing, Michigan.

We have examined the balance sheet of Michigan State Medical Society as of December 22, 1950, and the related statements of income and expense, surplus, and changes in reserves for the period from December 24, 1949, to December 22, 1950. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statements of income and expense and changes in reserves present fairly the financial position of the Michigan State Medical Society at December 22, 1950, and its income and expense for the period from December 24, 1949, to December 22, 1950, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding fiscal period.

January 11, 1951

ERNST & ERNST
Certified Public Accountants

BALANCE SHEET

December 22, 1950

ASSETS

Cash		
Demand deposits	$39,940.95	
Cash for deposit	2,077.13	
Office cash fund	11.61	
Savings deposits	15,000.00	$ 57,029.69
Accounts Receivable		
Advertising	$ 4,445.19	
Space at 1951 Postgraduate Clinical Conference	5,875.00	
	$10,320.19	
Less allowance for losses in collection	300.00	10,020.19
United States Government Securities (aggregate market or redemption price—$90,240.00)—Note A		93,823.89
Deferred Charges		
Expenses of 1951 Postgraduate Clinical Conference		216.21
		$161,089.98

LIABILITIES

Accounts Payable		
Current expenses and miscellaneous liabilities	$ 9,933.22	
Pay roll taxes	199.82	$ 10,133.04
Unearned Income		
Sales of space for 1951 Postgraduate Clinical Conference		9,220.00
Reserves—for unexpended funds received for special purposes		
Public Education Program:		
General activities $54,137.07		
Special activity 5,463.91	$59,600.98	
Rheumatic Fever Control Program	23,467.55	
Lecture Grant	400.00	83,468.53
Surplus		
Balance at December 24, 1949	$57,803.59	
Net income for the period from December 24, 1949, to December 22, 1950	464.82	58,268.41
		$161,089.98

Note A—United States Government Bonds in the amount of $30,000.00 have been designated as applicable to the reserve for Public Education Program.

INCOME AND EXPENSE

From December 24, 1949, to December 22, 1950

Income:		
Membership fees	$80,421.50	
Less portion allocated to income of THE JOURNAL for subscriptionss	7,103.56	$ 73,317.94
Income from THE JOURNAL		1,011.02
Interest:		
On securities	$ 2,025.67	
On savings deposits	148.36	2,174.03
Miscellaneous income		55.39
TOTAL INCOME		$ 76,558.38
Expenses:		
Administrative and general	$36,305.29	
Society activities	16,867.48	
Committee expenses	20,481.61	
Annual and special sessions	2,439.18	76,093.56
NET INCOME		$ 464.82

Comments

The Michigan State Medical Society was organized on September 17, 1910, under the laws of the State of Michigan as a non-profit corporation. The charter has been extended for a period of thirty years from September 17, 1940. The Society is affiliated with the American Medical Association and it charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of the public health, and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes "The Journal of the Michigan State Medical Society."

The balance sheets at December 22, 1950, are summarized as follows:

ASSETS

December 22, 1950

Cash	$ 57,029.69
Accounts receivable	10,020.19
Securities	93,823.89
Deferred charges	216.21
	$161,089.98

LIABILITIES

Accounts payable	$ 10,133.04
Unearned income	9,220.00
Reserves for unexpended funds received for special purposes	83,468.53
Surplus	58,268.41
	$161,089.98

Schedules included hereinafter show in greater detail the income from "The Journal" and the expenses of the Society.

Accounts receivable for advertising were classified as to period of charge and are summarized as follows:

PERIOD OF CHARGE

	December 22, 1950 Amount	Per Cent
October, November, and December	$4,141.61	93.17%
July, August, and September	65.62	1.48
January to June, inclusive	53.71	1.21
Prior to January	184.25	4.14
TOTAL	$4,445.19	100.00%

Our examination of accounts receivable as of December 22, 1950, included tests of the balances by communication with selected debtors. It is our opinion that the allowance of $300.00 is a reasonable provision for losses in collection of the accounts.

The changes in bonds owned during the period were as follows:

Balance at December 24, 1949			$89,273.22
ADDITIONS			
Purchase of United States Savings Bonds, Series F, maturing June 1, 1962	$4,440.00		
Increase in redemption value of United States Savings Bonds acquired in prior years	$123.50		
Less amortization of bond premium	12.83	110.67	4,550.67
Balance at December 22, 1950 (of which bonds in the amount of $30,000.00 have been designated for the Public Education Program)			$ 93,823.89

Bonds owned at December 22, 1950, have been stated at cost, adjusted for increases in redemption price of United States Savings Bonds, Series F, and less amortization of premiums paid. We inspected the bonds and accounted for the income from them for the period. At December 22, 1950, the aggregate carrying amount of the bonds owned was $3,583.89 greater than the aggregate market or redemption prices. Details of the bonds are shown in a schedule in this report.

During the period the Society received $112,800.00 from county medical societies representing collections of assessments levied by the American Medical Association on its members. All such collections were remitted to the American Medical Association and the amounts do not appear in the Society's financial statements.

EXPENSES

From December 24, 1949, to December 22, 1950

Administrative and general:	
Salaries—administrative	$ 7,133.18
Salaries—office	7,487.67
General counsel	4,190.43
Office rent and light	1,633.95
Printing	66.85
Stationery and supplies	2,719.35
Postage	1,149.76
Insurance and fidelity bonds	3,701.96
Audit	732.50
New equipment and repairs	988.99
Telephone and telegraph	3,161.61
Pay roll taxes	1,211.88
Provision for doubtful accounts	232.50
Miscellaneous	1,894.66
TOTAL	$36,305.29
Society activities:	
Council expense	$ 9,066.38
Delegates to American Medical Association	2,840.65
General society travel	1,593.30
Officers' travel expense	1,807.93
Secretary's letter	1,259.22
Woman's Auxiliary—annual meeting	300.00
Sundry society expense	
TOTAL	$16,867.48
Committee expenses:	
Cancer	$ 3,000.00
Child welfare	12.70
Legislative	1,438.04
Postgraduate medical education	3,873.62
Preventive medicine	69.32
Geriatrics	64.09
Industrial hygiene	352.48
Maternal health	634.94
Mental hygiene	276.52
Scientific radio	66.54
Venereal disease control	138.49
Tuberculosis control	74.87
Michigan Health Council	7,500.00
Sundry other	2,980.00
TOTAL	$20,481.61
Annual and special sessions:	
Annual session:	
Scientific meeting	$ 3,067.21
Exhibit	2,796.90
Projection expense	182.50
Officers' night and Biddle oration	794.48
Press	922.61
Printing, mailing, and postage	2,960.72
Registration	280.86
Salaries	3,750.00
State society night	3,190.63
Hotel expense	573.57
House of Delegates expense	827.75
Miscellaneous	532.78
	$19,880.01
Postgraduate Clinical Institute:	
Salaries	$ 2,150.04
Scientific meeting	1,543.10
Committee meetings	145.28
Printing, mailing, and postage	2,024.83
Exhibits	1,726.63
Press	808.28
Registration	70.01
Hotel expense	359.37
Miscellaneous	671.63
	$ 9,499.17
	$29,379.18

Less sales of display space:	
Annual session	$17,940.00
Postgraduate Clinical Institute	9,000.00
	$26,940.00
NET TOTAL	$ 2,439.18

THE JOURNAL

From December 24, 1949, to December 22, 1950

Income:	
Subscriptions from members	$ 7,103.56
Other subscriptions	468.68
Advertising sales	45,447.60
Reprint sales and cuts	3,423.72
	$56,443.56
Expenses:	
Salaries	$10,293.25
Editor's expense	1,800.00
Printing and mailing	30,855.44
Cost of reprints and cuts	2,083.03
Discounts and commissions on advertising sales	10,224.60
Miscellaneous	176.22
	$55,432.54
NET INCOME	$ 1,011.02

Note: The deficit was financed from reserves.

RHEUMATIC FEVER CONTROL PROGRAM

From December 24, 1949, to December 22, 1950

INCOME	
Grant from Michigan Heart Association	$11,623.16
Grant from Michigan Chapter—Arthritis and Rheumatism Foundation	2,250.00
TOTAL INCOME	$13,873.16
EXPENSES	
Expenses of central office:	
Salaries—administrative	$ 8,000.00
Salaries—general	650.04
Equipment and supplies	192.55
Committee meetings	365.82
Pay roll taxes	110.60
Publications and pamphlets	33.75
Travel	958.62
Printing, stationery, and supplies	897.04
	$11,208.42
Expenses of local consultation and diagnostic centers—advances and expenses:	
Alpena	$
Ann Arbor	200.00
Battle Creek	
Bay City	500.00
Flint	
Grand Rapids	2,500.00
Jackson	
Kalamazoo	800.00
Lansing	307.20
Marquette	1,000.00
Muskegon	
Pontiac	
Port Huron	
Saginaw	600.00
St. Joseph-Benton Harbor	
Traverse City	1,000.00
Detroit (Wayne County)	1,177.96
	$ 8,085.16
TOTAL EXPENSES	$19,293.58

NOTE: The deficit was financed from Reserves.

CASH

December 22, 1950

Demand Deposits:		
Michigan National Bank, Lansing—general account	$37,384.56	
The Detroit Bank—Treasurer's account	2,556.39	$39,940.95
Cash for deposit		2,077.13
Office change fund		11.61
Savings Deposits:		
The Detroit Bank	$ 5,000.00	
The Manufacturers National Bank of Detroit	5,000.00	
Wabeek State Bank of Detroit	5,000.00	15,000.00
TOTAL		$57,029.69

PUBLIC EDUCATION PROGRAM—GENERAL ACTIVITIES

From December 24, 1949, to December 22, 1950

INCOME	
Assessment of members	$79,155.71
Sales of movie rights	1,980.50
TOTAL INCOME	$81,136.21
EXPENSES	
Salaries	$17,663.09
Rent and light	916.65
Telephone and telegraph	1,749.38
Printing	1,365.57
Stationery and supplies	734.91
Postage	825.85
Office equipment and repairs	294.34
Travel	1,815.70
Public relations and secretaries' conference	3,400.59
Publications and pamphlets	398.20
Committee meetings	1,354.01
Newspaper advertising	744.29
Radio and television	23,465.24
Cinema	2,975.83
National meeting expense	1,888.46
Clipping service	252.37
Miscellaneous	2,393.28
TOTAL EXPENSES	$62,237.76

PUBLIC EDUCATION RESERVE ACCOUNT

From December 24, 1949, to December 22, 1950

Income from assessment of members	$15,645.54
EXPENSES	
Salaries	$21,699.44
Printing	8,388.66
Stationery and supplies	669.38
Postage	2,749.83
Telephone and telegraph	2,173.55
Travel	5,247.67
Office equipment	52.61
Publications and pamphlets	111.63
Meeting expenses:	
Special committee on education	553.59
Field secretaries	16.00
County societies and other meetings	1,729.23
Miscellaneous	44.50
TOTAL EXPENSES	$43,436.09

NOTE: The deficit was financed from Reserves.

MSMS BUDGETS—1951

GENERAL FUND

INCOME:	
4400 Members @ $45.00	$198,000.00
Less Allocation to The Journal @ $1.50	6,600.00
Less Allocation to Public Education @ $20.00	88,000.00
Less Allocation of $2.00 to Building Fund	8,800.00
Less Allocation of $1.50 to Contingent Fund (surplus)	6,600.00
General Fund 4400 members @ $20.00	$ 88,000.00
Income from The Journal	—0—
Interest Income	2,200.00
Miscellaneous Income	50.00
	$90,250.00
TOTAL INCOME:	
EXPENSES:	
Administrative & General:	
Office Rent & Light	$ 2,750.00
Contingent Fund Office Rent	1,088.00
Printing & Mailing	1,200.00
Provision for Doubtful Accts.	
Office Supplies	3,000.00
Postage	2,500.00
Insurance & Fidelity Bonds	3,800.00
Auditing	730.00
Administrative Salaries	7,500.00
General Office Salaries	10,346.00
General Counsel Retainer	3,960.00
General Counsel Expense	600.00
Equipment & Repairs	1,000.00
Telephone & Telegraph	3,000.00
Payroll Taxes	1,500.00
Miscellaneous Expenses	900.00
Total Administrative & General	$ 43,874.00

Society Activity:	
Council Expense	$ 8,000.00
Delegates to AMA (six)	3,500.00
General Society Travel & Entertainment	2,750.00
National Conf. Medical Service	250.00
Secretary's Letters	1,200.00
Woman's Auxiliary	500.00
Sundry Society Expense	300.00
Officers' Travel	3,000.00
Total Society Activity	$ 19,500.00
Annual Session (gain or loss)	—0—
Postgraduate Institute	—0—
Total Society Expenses	$ 19,500.00
Committee Expenses:	
Legislative & Legislative Advisory Committee	$ 2,200.00
Postgraduate Medical Education	5,000.00
Preventive Medicine	100.00
Cancer Control	5,000.00
Child Welfare	150.00
Geriatrics	150.00
Industrial Health & Industrial Health Day	500.00
Maternal Health (Incl. $500 for Survey)	700.00
Mental Hygiene	950.00
Scientific Radio	75.00
Venereal Disease Control	150.00
Tuberculosis Control	150.00
Distribution of Medical Care	150.00
Michigan Health Council	7,500.00
Rural Medical Service Comm	250.00
Emergency Medical Service	500.00
Atomic & Allied Procedures	150.00
Committees of House of Delegates and of The Council	3,201.00
Total Committee Expense	$ 26,876.00
TOTAL EXPENSES	90,250.00
GAIN OR LOSS FOR YEAR	—0—

THE JOURNAL

INCOME:	
4400 Members @ $1.50	$ 6,600.00
Subscriptions, Others	400.00
Advertising Sales	45,000.00
Reprint & Cut Sales	3,400.00
Total Income:	$ 55,400.00
EXPENSES:	
Editor's Expense	$ 1,800.00
Printing & Mailing	30,000.00
Reprint & Cut Expense	2,100.00
Salaries	10,840.00
Disc. & Commissions on Advertising Sales	10,200.00
Miscellaneous Journal Expense	460.00
Total Expenses	$ 55,400.00
GAIN OR LOSS FOR YEAR	—0—

1951 ANNUAL SESSION

INCOME:	
Booth Sales (100 spaces)	$ 16,300.00
EXPENSES:	
Scientific Meeting	$ 3,000.00
Registration	250.00
Exhibit Expense	2,000.00
Hotel Expense (MSMS Staff)	500.00
Officer's Night & Biddle Lecture	500.00
State Society Night	2,000.00
Printing, Mailing & Postage	1,935.00
Press Expense	500.00
Projection Expense	90.00
Committee on Scientific Work	175.00
Salaries	4,300.00
House of Delegates Expense	850.00
Miscellaneous Expense	200.00
Speakers' Conference	—0—
Total Expenses:	$ 16,300.00
GAIN OR LOSS ON ANNUAL SESSION	—0—

1951 MICHIGAN POSTGRADUATE CLINICAL INSTITUTE

INCOME:	
Booth Sales (70 spaces)	$ 11,740.00
EXPENSES:	
Scientific Meeting	2,600.00
Committee Meetings	300.00
Printing, Mailing & Postage	2,000.00
Exhibit Expense	2,500.00
Press Expense	750.00
Registration	150.00
Hotel Expense (MSMS Staff)	440.00
Salaries	2,100.00
Miscellaneous Expense	900.00
Total Expenses	$ 11,740.00
GAIN OR LOSS ON P.G.C.I.	—0—

PUBLIC EDUCATION PROGRAM

INCOME:	
Balance on Hand Jan. 1 (includes $30,000 in Bonds)	$ 54,137.07
Balance from P.E. Reserve Funds, Dec. 22 ,1950	5,463.91
4400 Members @ $20.00	88,000.00
Other Income (Sale of Movie)	
Total Funds Available	$147,600.98
EXPENSES:	
Clipping Service	$ 300.00
Committee Meetings	2,000.00
Equipment & Repairs	300.00
Postage & Mailing	3,500.00
Printing	600.00
Office Supplies	1,100.00
Rent & Light	900.00
Rent to Wayne Co. Med. Soc.	240.00
Salaries	43,000.00
Telephone & Telegraph	4,400.00
Travel	7,200.00
Cinema	5,000.00
Display Advertising	500.00
Newspapers	2,500.00
Publications & Pamphlets	8,000.00
Radio "Tell Me, Doctor"	23,000.00
National Meeting Expense	1,500.00
County Secretary's—P.R. Conf.	3,000.00
Miscellaneous Expense	2,500.00
Special Committee on Education	500.00
County Society Meetings	1,000.00
Total Expenses	$111,040.00
Publication Education Surplus (from 1951 Income)	30,000.00
	$141,040.00
Balance to January 1 incl. interest income of $2,200—earmarked	6,560.98

NOTE: THIS BUDGET REPRESENTS THE ENTIRE EXPENSES FOR PUBLIC EDUCATION ACTIVITIES. THIS WAS PREVIOUSLY BUDGETED UNDER TWO SEPARATE ACCOUNTS: PUBLIC EDUCATION ACCOUNT AND PUBLIC EDUCATION RESERVE FUND.

RHEUMATIC FEVER CONTROL PROGRAM

INCOME:	
Balance on Hand January 1	$ 23,467.55
Accts. Receivable:	
Michigan Heart Association	11,623.16
Contribution:	
Michigan Heart Association	15,887.67
Michigan Society for Crippled Children and Adults, Inc.	3,500.00
Michigan Chapter—Arthritis & Rheumatism Found.	
TOTAL FUNDS AVAILABLE:	54,478.38
EXPENSES:	
Central Office:	
Committee Meetings	$ 1,200.00
Equipment & Repairs	1,000.00
Payroll Taxes	250.00
Postage	200.00
Printing & Mailing	1,000.00
Office Supplies	300.00
Publications & Pamphlets	1,000.00
Administrative Salaries	8,800.00
Central Office Salaries	1,000.00
Travel	2,000.00
Miscellaneous	100.00
Exhibit	800.00
Field Worker (Salary)	4,800.00
Total Central Office Expense	$ 22,450.00
Control Centers:	
Alpena	$ 500.00
Ann Arbor	500.00
Bay City	1,200.00
Detroit	1,500.00
Grand Rapids & Muskegon	3,500.00
Jackson	500.00
Kalamazoo	1,000.00
Lansing	1,000.00
Marquette	2,000.00
Pontiac	1,000.00
Saginaw	1,000.00
Traverse City	1,500.00
Inactive & Proposed Centers	4,500.00
Contingencies	12,328.38
Total Control Center Expense:	$ 32,028.38
TOTAL EXPENSES:	$ 54,478.38

MASS BLOOD TYPING

(Continued from Page 288)

While the blood-typing program has been in progress, further improvements and valuable modifications are being found constantly. Our experiences, pooled with those of other communities which have recently undertaken similar programs, will eventually help create a pattern according to which mass blood typing may be carried out with maximal economy, speed and accuracy.

To those who had a part in the mass blood typing of Jackson this project has been more than a mere job—it has been a civic and patriotic enterprise to which every participant contributed happily and generously in time, material and ideas. This fine display of American spirit has demonstrated that lack of funds may well be compensated by the willingness of patriotic citizens to give of their own self and that the cost of the entire project may be reduced to a level well within reach of every community.

MEDICAL DEFENSE ACTIVITIES

(Continued from Page 293)

F. A sub-committee has been given the task of developing a procedure for the keeping of records and statistics. One of its main duties is to develop adequate casualty tags and records.

G. There has been appointed a personnel assignment sub-committee which, working closely with hospital medical staffs, will plan the assignment of doctors to the various units in the medical plan.

In this presentation, there has been no attempt to deal in specific details. The Medical Defense Plan of the Wayne County Medical Society has been given in broad outline together with an estimate of the personnel requirements. The various sub-committees of the Committee on Civilian Defense and Disaster of the Wayne County Medical Society have been presented.

Conclusion

The plan has been formulated with the confident understanding that all professional groups and individuals will co-operate and all will carry out the specific duties of their assignment. The success of this plan depends upon this. No plan can ever be developed and implemented unless everyone accepts as serious the threat which hovers over us. History is replete with evidence that men are capable of making decisions to carry war to civilian populations. With world conditions as they are today, the only way civilians can survive is to know what to expect, and to plan what to do about it. We doctors can tell people these things—but we can't always just keep on talking. We have got to do something concrete. People look to us for something and we have to see that they get it.

DETROIT PHYSIOLOGICAL SOCIETY

(Continued from Page 299)

lymph nodes in predicting the survival prospects of patients with carcinoma has been repeatedly stated. One might conclude that the frequency of discovery of lymphatic metastasis is almost directly proportional to the inquisitiveness and patience of the pathologist. Special techniques have been offered for recognizing and counting lymph nodes in gross pathological specimens. All have accomplished this end but are too slow and cumbersome for practical purposes. A method is presented which is more rapid and less tedious than other techniques of lymph node examination and permits accurate examination of either small or large specimens.

Formalin-fixed gross specimens are embedded in a water-soluble synthetic wax, Carbowax, using transparent plastic sausage casings for containers. The embedded tissue is sliced serially with a butcher's rotary meat slicer and is transilluminated by fluorescent light. Each slice of one to two millimeters in thickness is oriented next to its neighbor on a glass plate so that the examiner can recognize the presence of a single node in more than one slice, thus avoiding a falsely high lymph node count. If histological sections of any portion of a slice are desired, the area is removed from the slide with a knife and placed directly into melted embedding medium.

Where this method has been used, it is believed that every lymph node larger than two millimeters has been found and examined. It is felt that this method is feasible for routine laboratory examinations and that its accuracy will make it valuable in investigative studies of the spread of cancer.



What Can Be Done For The Alcoholic?

Assuming that alcoholism is a disease and not a voluntary state, a great deal can be done for this type of patient.

The Keeley Institute, specializing exclusively in the care of the alcoholic for over half a century, has developed a smooth rehabilitation program to guide the patient back to a normal regimen of living.

The course of treatment employed is in line with modern concepts of therapy—gradual withdrawal, physical rehabilitation, re-orientation and re-education.

Nauseants, reactors and aversion methods are *not* employed—consequently the patient's confidence is quickly obtained and maintained.

Special emphasis is placed on the nutrition phase of treatment—an excellent cuisine is supplemented by vitamins, lipotropic factors and other dietary elements as indicated.

Careful evaluation of the patient's psychosomatic background is made by the attending staff of physicians, and group re-education supplemented by individual consultation helps restore a normal mental attitude.

Upon completion of the course, lasting about 4 weeks, the patient is referred back to his physician to whom a full progress report is given.

Both male and female patients are accepted.

THE KEELEY INSTITUTE
Dwight, Illinois

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

Michigan's fifty-five local health officers will gather in Lansing, April 4-6, for the second annual Commissioner's Conference of Health Officers to consider how the public health programs of the State are being and should be conducted.

The health officers come to Lansing at the invitation of Commissioner Heustis who feels that those who take the public health program directly to the people are the ones who can best advise him on the health needs and wants of the people. The local health officers will meet in executive sessions. State Health Department staff members will be available for consultation but will meet with the health officers only upon request.

The Conference is patterned after the State and Territorial Health Officers Conference which federal law requires the Surgeon General to call. The First Commissioner's Conference called by Dr. Heustis in February, 1950, resulted in about fifty recommendations for improvement of the public health program, a large share of which have already been put into practice.

* * *

A new film, *Gastrointestinal Cancer: The Problem of Early Diagnosis,* can be borrowed from the Film Loan Library of the Michigan Department of Health. The film, sponsored by the American Cancer Society and the National Cancer Institute, shows how, through the use of modern diagnostic methods and certain simple laboratory tests, many gastrointestinal cancers can be found at the early, curable stage. Under these conditions, mortality can be sharply reduced.

The film is for professional audiences—medical societies, medical schools, hospital staffs and physicians' or nurses' groups. The film has just arrived in the Library and there are no bookings ahead at the present time.

* * *

All fluoroscopic shoe-fitting machines in Michigan are now being checked by the Division of Industrial Health, Michigan Department of Health, to make sure that they meet proper standards to protect customers and store employes from the danger of overexposure to x-rays.

Indiscriminate and too frequent use of any x-ray shoe-fitting machine is dangerous; overexposure to x-rays can cause radiation burns, anemia, leukemia and chronic radiation poisoning, the public is being warned. No individual should have more than twelve fluoroscopic shoe-fittings in one year and each exposure should be limited to five seconds.

Investigating the hazards of shoe-fitting machines in the state, industrial health engineers have found some older type, improperly shielded machines which actually continually leaked x-rays endangering the employe and the customer as well. They found others which used as much as six times the allowable exposure time.

The majority of the machines have now been checked. When a machine is found to be in proper working order, an acceptance card is placed on it, signifying that at the time it was checked it was non-hazardous if the customer limited his fluoroscopic shoe-fittings to no more than twelve a year.

* * *

The Division of Disease Control, Records and Statistics is receiving many queries about notifications of birth registrations. It was necessary to discontinue this service due to a cut in federal funds. This means that the Department no longer has this help in correcting its records and is no longer able to send out the immunization record forms which were previously enclosed with the notifications to parents.

* * *

W. H. Gebhard, of the Division of Laboratories, Michigan Department of Health, is co-author of a paper on "Dried Smallpox Vaccine" in the January 12, 1951, issue of *Public Health Reports.* J. W. Hornibrook, M.D., of the Laboratory of Biologics Control, Microbiological Institute, National Institute of Health, is senior author of the article.

* * *

Marian L. Slemons, M.D., deputy health commissioner of the Saginaw County Health Department since June 1, 1950, resigned, effective December 1, 1950.

Garland L. Weidner, M.D., has been appointed director of the Saginaw City Health Department to succeed E. W. Topp, M.D., who resigned last July 1 but has been acting director until his successor could be named.

Charles Phillip Anderson, M.D., recently with the Wayne County Health Department, was named assistant to Joseph G. Molner, M.D., Commissioner of the Detroit City Health Department, effective December 26, 1950.

Mr. James Walsh has been appointed acting director of the Isabella County Health Department to serve until a full-time director has been appointed.



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The new Welch Allyn anoscope features brilliant, shadow-free illumination, and an offset obturator handle ring.

A well-balanced stainless steel biopsy punch provides a means of obtaining a punch biopsy specimen for pathologic and histologic diagnosis.

Complete contents of this set are: No. 300 proctoscope and No. 304 infant proctoscope, No. 308 sigmoidoscope, No. 342 biopsy punch, No. 280 medium anoscope, one each rectal probe and hook, No. 700 battery handle, inflating bulb and No. 725 cord, all in attractive case.

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Communications

MEDICAL PRACTICE IN ENGLAND

The following is an excerpt from a letter written from a resident in a British hospital to a resident in a Michigan hospital; both graduated from the Medical School of the University of Michigan, 1945.

10, Chiltern Gardens,
Brooklands,
Manchester, England,
Dec. 3, 1950.

Craig Barlow, M.D.
St. Joseph's Mercy Hospital,
Ann Arbor, Michigan

Dear Craig:

First of all let me thank you for your very lucid and interesting account of the problems which would face me should I come back to the United States. You will appreciate that it is a big decision to make—sometimes I feel it would be the right thing and sometimes I'm not so sure. . . . At present Joan and I are comfortably settled, but for how long no one can say.

I am still learning surgery at the old hospital and until quite recently have felt more or less secure, but two weeks ago the Ministry of Health (opinion thereon deleted by editor) decided to get tough and told us that roughly 40% of the hospital registrars (i.e., comparable to your residents, junior and senior, who hope to become specialists eventually) were to be "discarded," and offered us a life in the armed forces or the Colonial Service as an alternative. This policy (no doubt necessitated by the country's embarrassing financial position) has made the future look very bleak for such as myself.

I might add that entry into general practice is becoming increasingly difficult unless one is not averse to a life of slavery amongst an unmanageable horde of patients in an industrial area.

It all boils down to the fact that the Government hasn't played straight with us. We, the hospital trainees, have been made financially comfortable and led to believe that, with expansion in the country's hospital and consultant facilities, there would be jobs (as consultants) for all who could make the grade. It appears that now we are to be bitterly disappointed. Needless to say we are fighting against it through the usual democratic channels, but I feel that the writing is already on the wall and cannot be erased. The octogenarian will continue to obtain free dentures and spectacles whilst the youngster with pulmonary TB waits for a sanatorium bed. I will write you more details of our plight sometime when I have more time.

Very sincerely,
GEORGE
(GEORGE R. CARR, M.D.)

PRESIDENT'S LETTER TO MSMS MEMBERS

Dear Doctor:

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Blue Cross was inaugurated in 1939. It began as a group type of coverage intended to provide only for

(Continued on Page 330)

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537 Millard St.
Saginaw

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The pathologist in direction is recognized by the Council on Medical Education and Hospitals of the A. M. A.

BIOLOGICALS AND BIOCHEMICALS

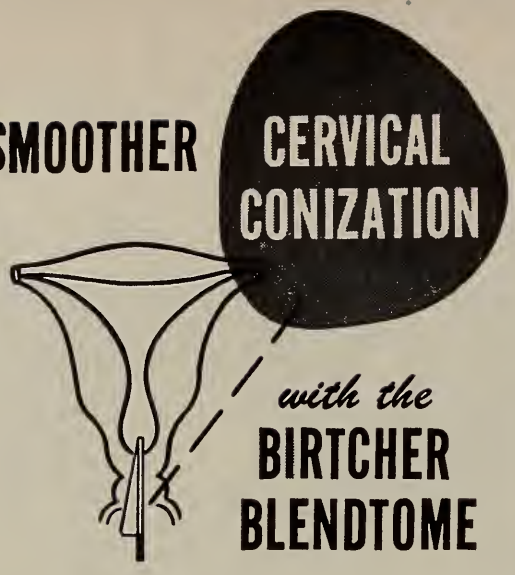
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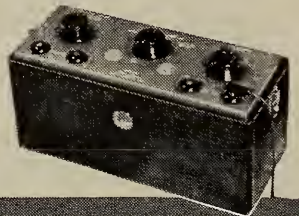
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Frequent necessity of cervical repair suggests the practicality of having a BLENDTOME ELECTROSURGICAL Unit in the office or clinic. With this instrument, the doctor is enabled to do a smoother cervical conization. The BLENDTOME cuts and coagulates simultaneously with a blended current. Scar and other tissue is cut through quickly and easily; blood and lymph vessels are almost instantly sealed. The cleaner field results in reduced trauma and operative shock, smoother convalescence and more rapid healing.

The Birtcher BLENDTOME was *designed* for use in the doctor's office or private clinic. It provides electrosurgery for all but the strictly major cases. There are many everyday uses for the BLENDTOME—any case indicating fast and sure cutting with simultaneous sealing off of blood and lymph vessels.

Consider how much more you would be able to do with the ease, timesaving and effectiveness of a Birtcher BLENDTOME in your own office. Write for literature.



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(Continued from Page 328)

those emergency conditions requiring hospitalization. Various additional services have been added as they could be proven actuarily sound.

Today, following several widely separated surveys, we find that through the doctor or the patient, or their combined efforts, requests have been made and services instituted which were never intended under the original principle of catastrophic coverage only.

For example: Blue Cross, within the present premium structure, was never intended to furnish hospitalization for rest cures. Prolonged stays in the hospital following operations or serious medical illnesses, to avoid home care, were not intended; nor was hospitalization for complete diagnostic survey part of the plan.

Every one of us who is in a position to prescribe the services offered by Blue Cross should prevent its unintended over-utilization. We are asking each hospital staff to survey this situation and take immediate steps to correct any misconception of the principle or misuse of the provisions of the policy—as indicated above—by anyone concerned. Also, instances in which the subscriber has been oversold by Blue Cross representatives should be reported at once.

Frankly, we must do these things, if we do not wish to price Blue Cross out of the market, for rates must keep pace with cost of services rendered. We regard this as a matter of vital importance in which we earnestly solicit your co-operation.

Very truly yours,

C. E. Umphrey,
President

In Memoriam

Annie Stevens Rundell, M.D., of Vassar, Michigan, was born in 1867 in Farmington, Maine, and was graduated from the University of Michigan School of Medicine in 1898. She was a past president of the Tuscola County Medical Society, a former member of the Michigan State Medical Society and the American Medical Association and a member of the Alpha Epsilon Iota Sorority. Doctor Rundell died February 22, 1950 in Vassar at the age of eighty-three.

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$10,000.00 accidental death *$50.00 weekly indemnity, accident and sickness*	**$16.00** *Quarterly*
$15,000.00 accidental death *$75.00 weekly indemnity, accident and sickness*	**$24.00** *Quarterly*
$20,000.00 accidental death *$100.00 weekly indemnity, accident and sickness*	**$32.00** *Quarterly*

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$4,000,000.00 INVESTED ASSETS — **$17,000,000.00 PAID FOR CLAIMS**

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. . . . . NEWS MEDICAL

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

Spring	MSMS Postgraduate Extramural Courses	State-wide
April 3	Calhoun County Medical Society's Clinic Day	Battle Creek
April 4	SECOND MICHIGAN INDUSTRIAL HEALTH DAY	Detroit
April 18	Genesee County Medical Society's Cancer Day	Flint
April	Highland Park Physicians Club Clinic	Highland Park
May 3	Ingham County Medical Society's Clinic Day	Lansing
May 9	Wayne University College of Medicine Alumni Association Clinic Day and Reunion	Detroit
May 9-11	American College of Surgeons Section Meeting	Detroit
May 22	Bon Secours Hospital Clinic Day	Grosse Pointe
June 5	St. Clair County Medical Society's Clinic Day. Black River Country Club	
June	Upper Peninsula Medical Society Annual Meeting	
July 26-27	Annual Coller-Penberthy Medical-Surgical Conference (sponsored by Grand Traverse - Leelanau - Benzie County Medical Society)	Traverse City
Sept. 26-27-28	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION	Grand Rapids
October 13	Third Michigan Cancer Conference	East Lansing
Autumn	MSMS Postgraduate Extramural Courses	State-wide
Oct. or Nov.	American Academy of General Practice of Wayne County	Detroit
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health)	Flint

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.



George F. Lull, M.D., *(right)*, Secretary and General Manager of the American Medical Association, congratulates Warren R. Mullen of Jackson, Michigan, upon his election as president of the newly organized Student American Medical Association. Mullen was elected on the second day of the two-day Constitutional Convention held December 28 and 29 at AMA headquarters in Chicago. The objectives of the new student organization are: (1) the advancement of medicine; (2) contribution to the welfare and education of medical students; (3) familiarization of its members with the purposes and ideals of the medical profession; and (4) the preparation of its members to meet the social, moral and ethical obligations of the profession.

Michigan Authors

Sidney Friedlaender, M.D., and Alex S. Friedlaender, M.D., Detroit, presented a paper entitled "Oral Cortisone Therapy in Allergic Disease" before the 7th annual meeting, American Academy of Allergy, New York City, February 5, 1951. They also appeared on the program of the American College of Allergists, 7th annual session, Chicago, Illinois, February 12, 1951, presenting a paper entitled "Observations on the Use of ACTH and Cortisone in Asthma, Hay Fever, and Other Allergic Diseases."

* * *

Sidney Friedlaender, M.D., assisted Clyde Christensen, M.D., of the University of Minnesota in the teaching of a special course in Mycology, given under the

(Continued on Page 334)



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(Continued from Page 332)

auspices of The American Academy of Allergy, February 2 through 4, 1951, at Cornell University Medical College, New York, New York.

* * *

William H. Havener, M.D., Ann Arbor, published a paper, "Cerebellar-Macular Abiotrophy," in the A.M.A. *Archives of Ophthalmology,* January, 1951.

* * *

Kenneth B. Babcock, M.D., Grace Hospital, Detroit, published a paper, "Telecasts Offer Hospitals a Mass Teaching Medium," in *The Journal of the American Hospital Association,* February, 1951.

* * *

Maternal Deaths.—All physicians of Michigan who render obstetric care, are requested to report immediately to the Michigan Department of Health, by "phone" (charges reversed), when a maternal death occurs in their practice, stating the name of the mother, date, place and cause of death.

* * *

Public Health Doctors.—The Civilian Personnel Branch of the Army Surgeon General's Office announces vacancies for one Medical Officer (Director of Public Health and Welfare) in Okinawa and nine Public Health Officers in Japan. All of these positions have to do with the care of civilian population. Applicants must be Doctors of Medicine with public health and welfare experience. There is no age limit.

Doctors wishing to make application for these positions or further information concerning them should write to Civilian Personnel Branch, Army Surgeon General's Office, Main Navy Building, Washington 25, D. C.

* * *

First Women Doctors Report for Army Duty.—The first two women physicians to volunteer and be accepted for service with the Army Medical Corps since the end of World War II have reported for duty, Major General Raymond W. Bliss, Surgeon General of the Army, announced January 18, 1951.

The new medical officers, both of whom will serve in the grade of major, are Doctor Ruth E. Church, of Walworth, Wisconsin, and Doctor Theresa T. Woo, of 1500 New Hampshire Avenue, N. W., Washington, D. C. They are assigned to the Preventive Medicine Division of the Office of the Surgeon General. Major Woo served in the Army for two years during World War II, while Major Church has no previous military service.

* * *

New Air Force Medical Center.—The Medical Department of the United States Air Force plans to retain its identity and become larger and stronger than ever. The House Armed Services Committee deleted, from a pending United States Air Force Reorganization Bill, a provision that would have abolished the Air Force Medical School Service, which will not, now, be transferred to the Army and Navy. It is planned to establish a thirty million dollar aeromedical center at, or near Randolph Field in Texas. This combined with the pres-

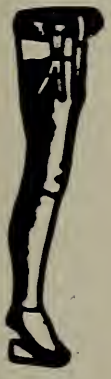
(Continued on Page 336)

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Relationship of Stress to Autonomic Lability

Studies in psychosomatics have shown that functional disorders often are a result of the patient's inability to adjust to emotionally stressful situations (stressor factors).

Nervous tension and chronic anxiety, discharged through a labile Autonomic Nervous System, can cause somatic disturbance. [1,2] Such states may involve any one of the organ systems or several at one time. [1,3] The outline below is designed to relate gastrointestinal and cardiovascular symptomatology to the exaggerated response of the autonomic nervous system.

	Physiologic Effects of Autonomic Discharge	
	Sympathetic	Parasympathetic
Gastro-intestinal System	Hypomotility Intestinal Atony Hyposecretion Reduced salivation	Hypermotility Gastrointestinal spasm Hypersecretion
Cardio-vascular System	Rapid heart rate Peripheral vaso-constriction	Slow heart rate Vasodilatation
Functional Manifesta-tions	Palpitation Tachycardia Elevated blood pressure Dry mouth and throat	Heartburn Nausea-vomiting Low blood pressure Colonic spasm

The data here tabulated is from references [3,4,5,6,7], given below.

When the clinical picture is suggestive of functional disorder, the diagnosis is supported by the presence of the following indications of autonomic lability:

Variable Blood Pressure
Body Temperature Variations
Changing pulse rate
Deviations in B. M. R.
Exaggerated Cold Pressure Reflex
Oculo-Cardiac Reflex Abnormalities
Glucose Tolerance Alterations

Therapy in these cases is directed toward: 1) relieving the somatic disturbance to prepare the patient for psychotherapy*; 2) guidance in making adjustment to stressful situations and correction of unhealthy attitudes.

*Drug treatment using adrenergic and cholinergic blocking agents in conjunction with sedatives. [8,9,10]

1. Ebaugh, F.: Postgrad. Med. *4:* 208, 1948. 2. Wilbur, D.: J.A.M.A. *141:* 1199, 1949. 3. Williams, E. and Carmichael, C.: J. Nat'l. Med. Assoc. *42:* 32, 1950. 4. Goodman, L. and Gilman, A.: The Pharmacological Basis of Therapeutics, The Macmillan Co., 1941. 5. Katz, L. et al: Ann. Int. Med. *27:* 261, 1947. 6. Weiss, E. et al: Am. J. Psychiat. *107:* 264, 1950. 7. Alvarez, W.: Chicago Med. Soc. Bulletin, 581, 1950. 8. Rakoff, A.: A Course in Practical Therapeutics, Williams and Wilkins, 1948. 9. Karnosh, L. and Zucker, E.: A Handbook of Psychiatry. C. V. Mosby Co., 1945. 10. Harris, L.: Canad. M.A.J. *58:* 251, 1948.

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(Continued from page 334)

ent School of Aviation Medicine, Randolph would establish a research institute, clinical research facilities, aviation clinic and aeromedical library.

* * *

H.R. 351.—Mrs. Rogers, Representative from Massachusetts, on January 3, 1951, introduced a bill to establish a Department of Veterans Affairs. Under this act, if passed, the Veterans Administration would become a full-fledged department with a secretary in the President's Cabinet. The President in his State of the Union message proposed that he be granted full authority to change or establish new Departments during the Emergency as a measure of defense. The Senate and the House have had bills introduced, S.101 and H.R.1545, which would deny the President authority to create new departments with cabinet rank in the name of defense.

* * *

Correction

In the paper by Gordon B. Myers, M.D., et al: "Treatment of Congestive Failure Refractory to the Standard Regimen," published in THE JOURNAL for December, 1950, on page 1437 in the right hand column, 19th line, the word "digitoxin" should have been "digoxin."

The original copy was correct, but this mistake in spelling was missed in the proof. We are glad to make this correction and hope that our readers who are interested will make the correction in their copies of THE JOURNAL, because this deals with the use of a particular medication for a particular purpose.

* * *

More Socialized Medicine—Another Bite.—H.R. 1287, introduced January 12, 1951, by Mr. King of California, will provide dispensary treatment and hospitalization if accommodations are available, including subsistence without cost in Army and Navy Hospitals for retired personnel of Army, Navy, Marine Corps, and Coast Guard, including members of the Fleet Reserve and Fleet Marine Reserve. This extends socialized medicine by quite a bite.

* * *

The American Medical Education Foundation has been organized under the laws of Illinois as a non-profit corporation for the receipt of funds for medical education. Establishment of the Foundation followed earlier action by the Board of Trustees of the American Medical Association, which last December appropriated half a million dollars as the nucleus of a fund to be raised for the aid of medical schools throughout the Nation.

"Assuring an adequate future supply of doctors, through American methods which will preseve the standards and freedom of medical education, is of vital importance to the continued success of the medical care plans, to all those engaged in the provision of health services and to every American citizen," Elmer L. Henderson, M.D., President A.M.A., said.

"The medical profession is willing to take the lead, but it also needs and asks the help of all Americans who prefer initiative and enterprise to Government domination and control."

The American Medical Association is asking all mem-

bers, and others wh[illegible] e [illegible] rested, to contribute to this Foundation, wh[illegible] s pr[illegible]arily to relieve Medical Schools.

Again Michigan ca[illegible] aim a "First for Michigan" in that the Michigan Fo[illegible]ation for Medical and Health Education was incorpo[illegible]ed and dedicated in 1945 "to acquire, provide, use, develop, endow, and finance methods, means, and facilities for postgraduate education in medicine, for education in medicine, for lay health education, and for research, fellowships and scholarships."

* * *

The Second International Poliomyelitis Conference has been scheduled for September 3-7, 1951, at the Medicinsk-Anatomisk Institut of the University of Copenhagen, in Copenhagen, Denmark, officials of the International Poliomyelitis Congress have announced.

Sponsors of the meeting are the National Foundation for Infantile Paralysis of the United States and the Danish National Association for Infantile Paralysis. Presiding President of the Conference is Professor Niels Bohr of Copenhagen.

The tentative program of the five-day meeting includes 32 papers and discussions on the general headings: "Virus and Its Interaction with the Host Cell;" "Pathology and Pathophysiology of Poliomyelitis;" "The Coxsackie Group of the Viruses;" "Differential Diagnosis in Acute Poliomyelitis;" "Treatment of Poliomyelitis;" "Immunity and Resistance in Poliomyelitis and Other Virus Infections;" and "Ecology of Poliomyelitis."

Transportation and currency arrangements are being facilitated by Thomas Cook & Son, Wagon-Lits-Cook, and the American Express Company. Conference officials announced that the Swedish American Lines are making available the MS STOCKHOLM, which is scheduled to leave New York on August 25th, and to arrive at Copenhagen on September 2.

Requests for hotel accommodations and information concerning the Conference may be obtained from the Secretariate of the Second International Poliomyelitis Conference, Statens Seruminstitut, 80 Amager Boulevard, Copenhagen, Denmark. The telegraphic address is *Poliocon, Copenhagen.*

* * *

AMA Honors Prepaid Medical Care Plan.—At a dinner meeting held in observation of the United Medical Service, the Blue Shield medical plan operating in the metropolitan district of New York, having enrolled its 2,000,000th member, at the Hotel Biltmore, New York, January 25, 1951, Elmer L. Henderson, M.D., President of the American Medical Association, sounded a warning against the dangers of Federal subsidy as a means of providing financial aid to medical schools. He urged nationwide support of a newly established fund for aid to medical education.

Dr. Henderson congratulated United Medical Service upon its attainments in six and a half years. "Your organization, by virtue of both its experience and its excellent leadership, also has contributed much to the national evolution and improvement of Voluntary Health Insurance." U.M.S. "is not the oldest of the country's Blue Shield medical care plans, but it definitely is one of the pioneers and top leaders."



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"At the moment, according to my latest information, the United Medical Service is the second largest of the non-profit plans providing insurance protection against surgical and medical bills. I understand that the Blue Shield plan in Michigan, the Michigan Medical Service, edged slightly ahead of you just two or three months ago." (Almost a hundred thousand. Editor.)

"The Blue Shield plans are enrolling new members at the rate of 28,000 every working day, and now protect more than seventeen million persons, or approximately twelve per cent of the population. Other non-profit medical care plans, which are not yet in the Blue Shield group, cover an additional two and one quarter million people, making a total of nearly twenty million in just the physician-sponsored plans alone."

* * *

Hard of Hearing Clinic.—A Hard of Hearing Clinic has been established to be conducted in conjunction with an aural rehabilitation program for hard-of-hearing school children in Michigan. Children from local school systems without special facilities will be given hearing tests and fitted with hearing aids in the M.S.D. clinic after which they will attend the hard-of-hearing classes at the Michigan School. They will receive training in speech reading, the use of hearing aids, auditory training, and their regular school subjects. Where necessary, they will also receive speech correction. Care of the aid, battery testing and rotation, cleaning of the ear mold, care of the cords, and operating the hearing aid efficiently will be taught the pupils. At the end of the special short-term session at the Michigan School, the pupils will return to their respective public schools.

A specially trained teacher-clinician with public school background has been employed to operate the clinic and conduct the classes. The hearing conservation service of the Health Department will assist in the purchase of hearing aids for children who are recommended for hearing aids but are financially unable to purchase them.

Board, room, instruction, and general medical care will be provided without charge. Parents will be expected to provide transportation, clothing, and spending money. Children living in the Flint area may be admitted as day pupils providing the parents can make arrangements for transportation.

The unique feature of the M.S.D. Clinic is the availability of aural rehabilitation for hard-of-hearing children during the school year without any disruption in the school achievement of the child. It is planned that children of about the same age level and achievement will attend the same session.

Information on the clinic has been forwarded to the Michigan Department of Health, to all school nurses in the state of Michigan, school superintendents, and other agencies. Through co-operation of all these agencies, it is hoped that full realization can be had of this program of aural rehabilitation for the hard-of-hearing school child.

The tentative dates of opening for the short-course clinic training classes for the hard of hearing are as follows:

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February 12, 1951, to March 22, 1951
April 3, 1951, to May 4, 1951
May 7, 1951, to June 14, 1951

Information and applications for entering the Hard of Hearing Clinic can be obtained from Miss Grace Schurr, field representative, at the Michigan School for the Deaf, Flint 2, Michigan.

* * *

The Annual June Clinic of St. Clair County Medical Society will be held at Black River Country Club, June 7, 1951, with morning, afternoon and evening sessions. The morning session will open at 10 o'clock. A Symposium on Endocrinology will be presented by Robert B. Greenblatt, M.D., Professor of Endocrinology at the University of Georgia; Edward Hudson, M.D., Medical Director for the Schering Corp., Bloomfield, New Jersey, and Warren Nelson, M.D., Professor of Anatomy at the University of Iowa.

* * *

Charles T. Anderson, M.D., Detroit, has been appointed Medical Director and Assistant to the Commissioner of the Detroit Department of Health, according to an announcement made by Joseph G. Molner, M.D., Commissioner.

Dr. Anderson was born in Chicago in 1910. He received his B.S. and M.D. degrees from Northwestern University (1932 and 1935). His public health work was taken at North Carolina University and Johns Hopkins University. He is a Diplomate of the American Board of Preventive Medicine and Public Health (1950).

Dr. Anderson has been active in public health work for several years, most recently with the Wayne County Health Department.

* * *

Michigan's Foremost Family Physician Lunette I. Powers, M.D., of Muskegon was honored by her home town with a civic banquet on January 31. The Occidental Hotel of Muskegon was the site for this testimonial dinner, arranged by the Public Health Committee of the Muskegon Chamber of Commerce. More than 300 were present including state and civic leaders.

An enrolled copy of House Concurrent Resolution No. 10 was presented to her by Senator Frank E. McKee and Representative Louis H. Freye which stated:

RESOLVED BY THE HOUSE OF REPRESENTATIVES (the Senate concurring), That the members of the Michigan Legislature congratulate and extend appreciation to Dr. Lunette I. Powers, "Michigan's Foremost Family Physician" for the year 1950.

* * *

The Washtenaw County Medical Society recently mailed two letters to: (a) the members of the Resident Staff of all hospitals in Ann Arbor and Washtenaw County; and (b) the heads of departments at University Hospital and the men in charge of interns at all other hospitals in the county. The letters explained the various types of membership in the Washtenaw County Medical Society and invited all residents and interns to become affiliated with their county medical society as Associate Members.

Congratulations, Washtenaw County Medical Society, on extending the hand of help and friendship to the future doctors in your area.

* * *

The Veterans Administration announces that due to budgetary limitations in the fiscal year 1952, it will close 321 VA offices where only one contact representative is assigned. In Michigan, this includes the cities of Battle Creek, Flint, Jackson, Lansing, Muskegon Heights, Saginaw, Escanaba, Grand Rapids, Kalamazoo, Marquette, St. Joseph, Sault Ste. Marie and Traverse City.

* * *

The American Medical Education Foundation has been formed by the medical profession of America to aid in providing funds for this nation's hard-pressed medical schools. Contributions are being received from individuals and groups, the largest being half a million dollars from the American Medical Association. A sizable sum ($100,000) has been contributed by the California Medical Association.

The AMA urges that every doctor of medicine consider making an annual gift of $100 or more to the American Medical Education Foundation. If the Medical Schools are not aided in a voluntary way—through the American Medical Education Foundation—someone else will have to take over their problems, with solutions certain to be less to the liking of the medical profession than if the doctors work out their own answers.

Contributions may be sent to the Foundation at 535 N. Dearborn Street, Chicago 10, Illinois.

Air Raid Instruction.—The following instructions on what to do in case of an air raid have been issued by Arthur W. Wallander, Director of Civil Defense. It is suggested that they be kept handy.

SNEAK ATTACK—NO WARNING GIVEN
DO THIS FAST

AT HOME—Get under bed or table close to wall away from windows. Cover exposed parts of body.
AT WORK—Get under desk, table or bench. Lie close to wall away from windows or glass doors. Cover exposed parts of body.
ON STREETS—Take any shelter if within a few steps. If no shelter near—fall to ground, face down. Cover exposed parts of body.
IN VEHICLE—Pull in to curb—turn off ignition—cover face and eyes and fall to floor.
CHILDREN IN SCHOOL—If your children are at school YOU stay at home. Don't phone—teachers are trained to care for the students.

WHEN YOU HEAR POLICE OR FIRE SIRENS
DO THIS

AT HOME—Go to previously selected shelter. Keep radio on.
AT WORK—Go to shelter designated by Building Control Director for your floor. Obey instructions of wardens.
ON STREET—Go to nearest public shelter, nearest building or subway. Keep away from windows. Obey orders of air wardens.
IN VEHICLE—Pull to curb—enter public shelter or building. Keep away from glass doors. Obey air wardens.
CHILDREN AT SCHOOL—If your children are at school YOU stay home. Don't phone—teachers are trained to care for the students.

AFTER AN ATTACK

Remain calm. Follow instructions of Civil Defense Forces.
Keep radio on to receive authorized information and instructions.
Do not use your car or telephone except in cases of extreme emergency. Roads and telephone lines are needed for Civil Defense rescue operations.

IF YOU ARE WITHIN BLAST AREA

Remain in your shelter until advised by radio or Civil Defense forces that it is safe to leave.
At first opportunity, remove outer garments and bathe, using plenty of strong soap.
Do not consume food or water or use any objects which may have been exposed to radioactive contamination.

—New York Times

The American Society for the Study of Sterility will hold its Seventh Annual Meeting at the Ritz-Carlton Hotel, Atlantic City, June 9-10, 1951. For program, write Pendleton Tompkins, M.D., c/o 49 E. 33rd St., New York 16.

* * *

The Ingham County Medical Society's Annual Presidents' Dinner of January 16 attracted 372 to the Country Club of Lansing. Guest speaker was William L. Shirer, author of "Berlin Diary" who gave a "Report on Germany."

J. S. Rozan, M.D., Lansing, was inducted as President of the Ingham County Medical Society at this meeting. The retiring President, Ralph Wadley, M.D., was made a member of the Board.

* * *

The Kent County Medical Society was featured by "the PR Doctor" of January 22 for its Emergency Phone System. This call system in Grand Rapids is a commercially operated plan which seeks to make the services of Doctors of Medicine available in any emergency, night or day.

The Physicians and Surgeons' Telephone Exchange of Grand Rapids has provided a 24-hour telephone answering, referral and location service to subscribing members for a quarter of a century. Recently the Kent County Medical Society decided the Exchange should provide coordinating functions by serving the public in emergencies. Each member of the Society, under fifty years of age, regardless of specialty, agrees to serve on a rotation basis as necessary to have Doctors available each night.

At the end of the first year's operation, the Exchange handled 456 emergency calls in a community of 165,000. D. B. Hagerman, M.D., Chairman, states: "The Service has been an ideal solution to clearing up misunderstandings, improving operating procedures and coordinating services to the best interests of everyone."

J. R. Brink, M.D., Secretary of the Kent County Medical Society, writes: "Efforts to serve the community in emergencies, as coordinated through the Exchange, are justified and a definite responsibility of the Kent County Medical Society."

* * *

The Upper Peninsula Medical Society will meet in Marquette on June 22-23-24, as guests of the Marquette-Alger County Medical Society.

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HACK'S FOOT NOTES

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According to Lerrigo,* "About half of the six year old children already have some sort of foot trouble, such as corns or calluses."

He blames outgrown shoes, stating that parents too often do not anticipate the growth —in spurts—of their children's feet.

HACK SHOES will be fitted correctly, Doctor.

*LERRIGO, MARION O., "Shoes Don't Grow," Today's Health, 29:52-54 (Jan.) 1951.

The American College of Physicians announces a postgraduate course in "Diseases Due to Allergic and Immune Mechanisms," to be held in Pittsburgh, April 24-28, 1951. For program and information, write ACP, 4200 Pine Street, Philadelphia 4, Pa.

* * *

C. E. Umphrey, M.D., Detroit, MSMS President, addressed the Dearborn Medical Society on January 23 on the subject, "Medicine, the Public, Federal Security, and Labor"; the Muskegon County Medical Society, January 31, on "Americanism in Medicine"; the Northeast Lions Club of Detroit, January 18, on "National Confusion"; the Crusaders Lodge, Detroit, December 11 on "What's Going Around in Washington"; the Livingston County Medical Society at Howell, December 1, on "Public Relations in Medicine"; the Monroe County Medical Society at Monroe, February 6, on "State Channels of Medical Strategy."

* * *

Councilor J. S. DeTar, M.D., Milan, addressed the Milan Women's Club on January 9. His subject was "Socialized Medicine: Do We Want It?"

* * *

Michigan Industrial Health Day, Detroit, April 4, 1951: J. L. Zemens, M.D., Detroit, President of the Michigan Association of Industrial Physicians and Surgeons, has appointed Carl Hanna, M.D., Detroit, General Chairman, assisted by the following committeemen: Carey P. McCord, M.D., Detroit, Chairman, Program Committee; Carl Hanna, M.D., Detroit, Chairman, Hospitality Committee; F. B. MacMillan, M.D., Detroit, Chairman, Banquet and Refreshments; Harley Krieger, M.D., Detroit, Chairman, Hotels and Meetings; Henry S. Brown, M.D., Detroit, Chairman, Publicity; Wm. J. Fulton, M.D., Detroit, Chairman, Equipment, Facilities and Printing and Ticket Sales.

A "Twenty-five Year Club" has been formed by the Michigan Association of Industrial Physicians and Surgeons to recognize and show appreciation to those doctors of medicine who are active members of the Association and who have devoted twenty-five years or more in the field of Occupational Health. The following twenty-five year men will receive special recognition on the occasion of the second Industrial Health Day, Rackham Memorial Building, Detroit, Wednesday, April 4, 1951:

A. L. Arnold, M.D., Z. B. Bennett, M.D., H. S. Brown, M.D., C. J. Carpenter, M.D., G. B. Carpenter, M.D., C. A. Christensen, M.D., C. S. Clarke, M.D., Henry Cook, M.D., R. H. Denham, M.D., C. L. DeVries, M.D., C. H. Eisman, M.D., W. L. Finton, M.D., C. B. Gardner, M.D., L. C. Harvie, M.D., L. E. Irvine, M.D., Harley Krieger, M.D., D. F. Kudner, M.D., V. S. Laurin, M.D., A. F. Lecklider, M.D., C. P. McCord, M.D., E. G. Merritt, M.D., J. D. Miller, M.D., D. W. Patterson, M.D., G. C. Penberthy, M.D., A. E. Pullon, M.D., H. J. Pyle, M.D., Joseph E. Rosenfeld, M.D., C. D. Selby, M.D., L. E. Sevey, M.D., M. R. Sutton, M.D., C. A. Teifer, M.D., G. M. Waldie, M.D., A. H. Whittaker, M.D.



The St. Joseph County Medical Society cooperated in a blood clinic in Sturgis on February 1 which broke the record with the taking of 228 pints of blood in one day. The Medical Society sponsored a Bloodmobile in cooperation with the American Red Cross and the Michigan Department of Health.

* * *

The Trustees of Mercy Hospital, St. Joseph, Michigan, were hosts to the staff on February 1 at an appreciation dinner. Toastmaster E. A. Westin congratulated the medical profession of the community "on the vision reflected in this magnificent institution." Bouton Sowers, M.D., Chief of Staff, thanked the Board of Trustees for superb physical facilities. "Greater Mercy is a challenge to our staff and we shall try to meet that challenge to the maximum extent of our abilities," stated Dr. Sowers.

* * *

The United Health and Welfare Fund (United Foundation in Detroit) has again reprinted a section of JMSMS. This time it was the "Heart Number" (December, 1950). The reprint includes the cover and all the scientific articles having to do with heart, rheumatic fever, arteriosclerosis, et cetera, as well as the feature article on the Michigan Heart Association. This reprint will be sent broadcast by the United Health and Welfare Fund to its leaders and committees throughout Michigan.

Shattuck W. Hartwell, M.D., Muskegon, has been appointed by Council Chairman R. J. Hubbell, M.D., as Chairman of the MSMS Emergency Medical Service Committee. As Chairman of this Committee, he will also serve as one of the two MSMS representatives on the Governor's Technical Committee on Medical and Health Matters in Civil Defense Planning.

M. L. Lichter, M.D., Melvindale, has been appointed as a member of the MSMS Emergency Medical Service Committee.

* * *

The Northern Tri-State Medical Association will hold its annual meeting at the Commodore Perry Hotel, Toledo, Ohio, on April 17, 1951. The program is as follows:

9:00 Welcome—Pres. John A. Stifel, M.D.
9:30 Management of Thyrotoxicosis—George Curtis, Professor of Surgery, Ohio State University
10:00 ACTH and Cortisone—Jerome Conn, M.D., Professor of Medicine, University of Michigan, Ann Arbor, Michigan
10:30 Management of Labor in Borderline Pelvis—G. J. Vosburgh, M.D., Professor of Obstetrics, Western Reserve Medical School, Cleveland,Ohio
11:00 C.P.C. on Selected Case—Ed Burns, M.D., Pathologist, Mercy Hospital, Toledo, Ohio
12:30 Luncheon
1:00 Luncheon address—Grove Patterson, World Traveler, Editor of Toledo Blade, Toledo, Ohio
2:00 Medical Aspects of Atomic Warfare—Hymer L. Friedell, M.D., Director of Radiology, Western Reserve Medical School, Cleveland, Ohio
2:30 Diaphragmatic Hernia; The Evolution of Clinical Symptoms—Charles D. Branch, M.D., Assistant Clinical Professor of Surgery, University of Illinois, and George D. Laver's St. Francis Hospital, Peoria, Illinois.
3:00 Experiences with Pre-Frontal Lobotomy—E. Vernon Hohn, M.D., Director Neurosurgery, Indianapolis General Hospital, Indianapolis, Indiana
3:30 Anticoagulant Therapy—Warren F. Allen, Ph.D., Educational Department, Upiohn Company, Kalamazoo, Michigan
4:00 Election of officers
4:15 Surgery of Mitral Stenosis—Speaker to be announced (may be changed)

All members of MSMS are cordially invited. Registration-membership fee: $3.00.

WAYNE UNIVERSITY COLLEGE OF MEDICINE ALUMNI ASSOCIATION CLINIC DAY AND REUNION

The Annual Wayne University Alumni Clinic Day and Reunion will be held at the Hotel Fort Shelby in Detroit on Wednesday, May 9, 1951. Registration will start at 9 a.m. followed by the annual meeting of the Medical Alumni Association at 9:30 a.m. A scientific program will be presented from 10 a.m. to 12 noon and from 2 p.m. to 4:30 p.m. Dr. Gordon H. Scott, Dean of the Wayne University College of Medicine, will be the speaker at the subscription luncheon. This year's reunion will feature the Golden Anniversary celebration of the Class of 1901, and reunions of the Classes of 1906, 1911, 1916, 1921, 1926, 1931, 1936, 1941, and 1946. Graduates before 1901 will hold the annual meeting of the Emeritus Club following the noon luncheon.

The evening program will consist of a reception for alumni and their guests at 6:30 p.m. and the annual Reunion Dinner at 7:30.

J. Courtney Fremont, M.D., chairman of the program committee, has announced the following scientific speakers:

"Observation on Gastrointestinal Gas"—Walter G. Maddock, M.D., Professor of Surgery, Northwestern University, Chicago, Illinois.

"The Management of Allergic Conditions in Infancy and Childhood"—Arthur J. Horesh, M.D., Assistant Clinical Professor of Pediatrics, Western Reserve University, Cleveland, Ohio.

"Carcinoma of the Breast"—Carl W. Eberbach, M.D., Associate Clinical Professor of Surgery, Marquette University School of Medicine, Milwaukee.

"Radioactive Iodine in the Treatment of Goitre"—William M. McConahey, M.D., Mayo Clinic, Rochester, Minnesota.

"The Use of Hormones in Gynecology"—Jacob P. Greenhill, M.D., Professor of Gynecology, Cook County Graduate School of Medicine, Chicago, Illinois.

"Emergency Treatment"—Symposium of Detroit physicians.

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WANTED: Physician recalled by Air Forces would like someone with Michigan license to take over lucrative practice, mostly internal medicine and allergy. Office located in exclusive residential section of Northwest Detroit on ground floor, main street with unrestricted parking; near large hospitals. Reply to: Box 2, 2020 Olds Tower, Lansing 8, Michigan.

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For the treatment of ventricular tachycardia:

Orally: 1 Gm. (4 capsules) followed by 0.5-1.0 Gm. (2 to 4 capsules) every four to six hours as indicated.

Intravenously: 200-1000 mg. (2 to 10 cc.). *Caution*—administer no more than 200 mg. (2 cc.) per minute.

Hypotension may occur during intravenous use in conscious patients. As a precautionary measure, administer at a rate no greater than 200 mg. (2 cc.) per minute to a total of no more than 1 Gm. Electrocardiographic tracings should be made during injection so that injection may be discontinued when tachycardia is interrupted. Blood pressure recordings should be made frequently during injection. *If marked hypotension occurs, rate of injection should be slowed or stopped.*

For the treatment of runs of ventricular extrasystoles:

Orally: 0.5 Gm. (2 capsules) every four to six hours as indicated.

IN ANESTHESIA

During anesthesia, to correct ventricular arrhythmias:

Intravenously: 100-500 mg. (1 to 5 cc.). *Caution*—administer no more than 200 mg. (2 cc.) per minute.

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MSMS ANNUAL SESSION, GRAND RAPIDS

September 24 to 28, 1951

Monday and Tuesday, September 24 and 25
House of Delegates
Ballroom, Pantlind Hotel

Wednesday, Thursday and Friday, September 26, 27 and 28
Scientific Sessions
Civic Auditorium

John W. Cline, M.D., San Francisca, President of the American Medical Association (September, 1951) will be top honor guest at the MSMS Annual Session.

Doctor Cline will speak to the MSMS House of Delegates on Tuesday, September 25, on "The Outlook for Medicine in the Immediate Future." This meeting will be held in the Ballroom of the Pantlind Hotel.

On Wednesday, September 26, at the public meeting (Officers Night), Dr. Cline's topic, in a brief presentation, will be "The Influence of Freedom Upon the Progress of Medicine."

Members of the Michigan State Medical Society are urged to invite their friends to attend the public meeting of Wednesday, September 26, at 8:30 p.m. in the Black and Silver Ballroom of the Civic Auditorium, Grand Rapids.

SCHOOL BUSES TO BE USED AS AMBULANCES

John R. Rodger, M.D., Bellaire, Chairman of the MSMS Rural Medical Service Committee, is responsible for another "Michigan First." He is author of a plan to utilize the 90,000 standardized school buses in the United States as highly serviceable ambulances in an emergency, such as following an atomic attack.

Through the co-operation of school authorities in his home area, Dr. Rodger converted a school bus into an ambulance at a cost of approximately $15.00 for the lumber and materials—without any damage to the bus. This bus-ambulance was demonstrated recently to Michigan Civil Defense officials, in Lansing.

According to the *Michigan Health Council Bulletin,* points in favor of such a plan include:

1. Buses are of uniform construction and conversion instructions could be uniform and quick.
2. Easily Identified—All are painted in a uniform manner making it easy for all to identify and expedite their movement in traffic.
3. Licensed and numbered so that record of their movement could be charted easily.
4. Trained, experienced drivers available.
5. Gasoline and repairs. An emergency supply of gasoline would be available at garage or storage point of each bus during early, important hours of an emergency.
6. Buses are heated. They carry emergency first-aid kits and fire extinguishers.

The bus-ambulance plan has been given the nod by the AMA National Emergency Medical Service Committee; the idea will be spread nationally by this important group.

POLICY RE EXTENT OF COMMITTEE RESPONSIBILITY

The Executive Committee of The Council, Michigan State Medical Society, on February 15, adopted the following policy regarding the extent of responsibility of committees of the Michigan State Medical Society and of The Council of the Michigan State Medical Society:

"That the Secretary be instructed to write the Chairman of each Michigan State Medical Society Committee and the Chairman of each Council or Special Committee reiterating The Council policy that:

"1. All committee minutes must be approved by The Council or its Executive Committee before the actions of said committee become the policy of the MSMS.

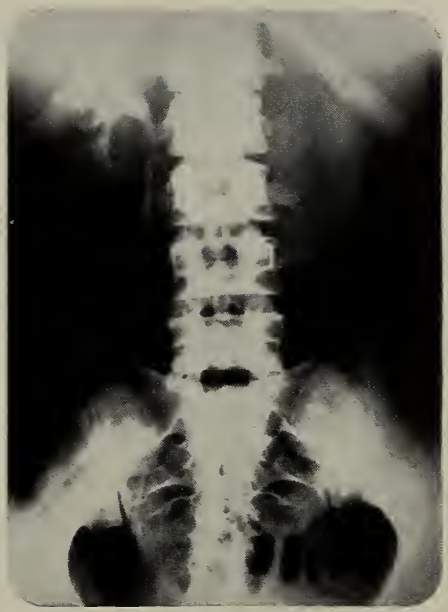
"2. That publicity on all discussions, decisions and actions by committees and committeemen must be deferred until the minutes have been approved by The Council or by its Executive Committee, and that such publicity must be released only by The Council or its Executive Committee, through the Public Relations Department of MSMS.

"3. That when it is necessary to supplement committees' minutes with oral reports, the Chairmen may send

(Continued on Page 358)

when decisions depend
on the
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SCHERING

EXTENT OF COMMITTEE RESPONSIBILITY

(Continued from Page 356)

official representatives to attend sessions of The Council or its Executive Committee.

"And further, that the Secretary be instructed to notify each committee chairman to transmit this information to each committeeman individually and to emphasize this policy in committee meeting."

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of February 15, 1951

Seventy-seven items were considered by the Executive Committee of The Council at its February 15 meeting. Chief in importance were:

- Monthly financial reports were presented and approved. Bills payable were inspected and authorized to be paid.
- Children's Psychiatric Hospital site. The viewpoints were heard of those who desired this hospital to be built (a) at Northville or (b) in connection with a medical teaching institution. The motion of the Executive Committee of The Council was "that the Michigan State Medical Society is in hearty accord with the plans for the development of programs for psychiatrically disturbed children. We are not in any position to recommend a site for buildings to facilitate this program. We believe that the program of treatment is more important than of housing and we have confidence in the Legislature to seek the advice from leaders in this field from the medical profession to so locate such a unit as to take best economic advantage of these facilities and available personnel in the state."
- $65 million hospital building program. The state hospital building program ($60 million for mental hospitals) was discussed and referred to the MSMS Mental Hygiene Committee.
- MSMS policy re EMIC program, if a new program is promulgated by the federal government. Opinions were presented and the matter was referred to (a) the Child Welfare Committee and (b) the Maternal Health Committee for study and report.
- Discussion of matters of mutual interest with State Health Commissioner A. E. Heustis, M.D., included Report No. 8 entitled "Michigan's Health Agencies"—a staff report to the Michigan Joint Legislative Committee on Reorganization of State Government.
- Secretary L. Fernald Foster, M.D., was authorized to attend February 19 meeting in Governor's office, Lansing, re number of Doctors of Medicine in Michigan as part of Civil Defense Program.
- Wm. H. Gordon, M.D., Detroit, was appointed Chairman of MSMS Emergency Medical Service Committee, to take the place of H. F. Becker, M.D., Battle Creek, resigned. A letter of appreciation and thanks was forwarded to Dr. Becker for his extraordinary contributions to the Michigan State Medical Society and to Medicine.
- The monthly reports of the President, President-Elect, Secretary and Editor were approved.
- *The Michigan Manufacturers Association Bulletin* entitled "Bargaining Medical and Surgical Plans" was presented, and a letter of thanks was authorized to be sent to the Association.
- A special Committee to Study the Proposed Tuberculosis Bill, that may be introduced into the Michigan Legislature, was appointed as follows: L. A. Drolett, M.D., Lansing, Chairman, L. E. Holly, M.D., Muskegon, R. J. Hubbell, M.D., Kalamazoo, G. W. Slagle, M.D., Battle Creek, J. W. Towey, M.D., Powers, and J. Joseph Herbert, Manistique.
- The Roster Number of JMSMS (July) is to include addresses of all MSMS members, by action of the Executive Committee of The Council.
- Executive Office headquarters. The Executive Committee of The Council approved taking an option, leading to the purchase of property at 606 Townsend, Lansing, as very desirable and well-located property for the MSMS headquarters.
- Associate Fellowship in AMA for A. J. Baker, M.D., Grand Rapids: favorable recommendation was referred to the AMA for action in June, 1951, Atlantic City.
- Remission of dues of military members. This was authorized by the Executive Committee of The Council, which ruled that the precedent of the AMA re dues of MSMS members who go into Military Service be followed in Michigan so far as MSMS dues are concerned. Upon the return of the military member from service, the same procedure is to be followed (so far as MSMS dues are concerned) as prevailed during World War No. II.
- Woman's Auxiliary Silver Anniversary. This event will be celebrated in September, 1951; a

(Continued on Page 360)

IN THE AIM TOWARD



Lessening Illness in the Aged

By maintaining complete adequacy of the diet during advancing years, considerable can be accomplished in reducing the frequency of illness in the aged population and in favorably influencing the mental state of the geriatric patient. In particular, ample intake of protein, vitamins, and minerals is needed for preventing many somatic and psychic symptoms of malnutrition often observed in the aged.[1]

The dietary supplement, Ovaltine in milk, is a reliable aid for supporting the nutritional state of the elderly patient. This nutritious beverage richly provides biologically complete protein, minerals—especially calcium and iron—and all the vitamins considered essential. Used in the recommended amount, it can readily supplement even poor diets to full nutrient adequacy. It is easily digestible, invigorating, and pleasingly palatable.

Note the wealth of nutrients furnished by Ovaltine in milk, as shown by the table given below.

1. Thewlis, M., and Gale, E. T.: Ambulatory Care of the Aged, Geriatrics, 5:331 (Nov.-Dec.) 1950.

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Three servings daily of Ovaltine, each made of ½ oz. of Ovaltine and 8 oz. of whole milk, provide:*

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CALCIUM	1.12 Gm.	NIACIN	6.8 mg
PHOSPHORUS	0.94 Gm.	VITAMIN C	30.0 mg.
IRON	12 mg.	VITAMIN D	417 I.U.
COPPER	0.5 mg.	CALORIES	676

*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving, they are virtually identical in nutritional content.

HIGHLIGHTS OF EXECUTIVE COMMITTEE

(Continued from Page 358)

silver page will be inserted in the Annual Session program and a gavel will be presented by the MSMS to the Woman's Auxiliary on September 26, 1951.

- The monthly progress reports of the Legal Counsel and of the Public Relations Counsel were presented.
- "Tell Me, Doctor." A new contract for this MSMS radio program, which will aggregate more savings to MSMS, was approved by the Legal Counsel and authorized to be signed by the Executive Committee of The Council.
- A new TV program over WXYZ-TV, to be titled "Your Medical Mail Box" was approved and will be inaugurated in the near future.
- Civil defense. The plan of John R. Rodger, M.D., Bellaire, to use school buses for transporting injured during civil defense emergencies, as demonstrated recently to the Michigan Civil Defense authorities, was outlined by Secretary Foster and Public Relations Counsel H. W. Brenneman to the AMA National Emergency Medical Service Committee in Chicago, on February 3, and approved by this body, which will recommend the plan for adoption nationally.
- Conference on Basic Science and Medical Practice Acts. President Umphrey and Secretary Foster were authorized to attend a meeting called by the Governor to discuss these two acts in their relationship to securing more medicinal practitioners for Michigan.
- Site of new state tuberculosis sanitarium. The following statement re site of proposed tuberculosis sanitarium in South-western Michigan was approved by the Executive Committee of The Council:

> "The Michigan State Medical Society is vitally interested in the establishment of the best possible tuberculosis facilities for the citizens of Michigan.
>
> "The Council (Board of Directors) of the MSMS has neither been asked for a recommendation relative to the location of the new tuberculosis sanitarium in southwestern Michigan nor considers it its prerogative to make such a recommendation.
>
> "The Council of the MSMS has the utmost confidence in the ability of the Michigan Legislature to devise methods to make the best possible choice of a site for the new proposed sanitarium to best serve the people of Michigan.
>
> "The Council recognizes that there are a number of tuberculosis specialists in the MSMS who upon request could make valuable contributions to the legislature in its deliberations.
>
> "The Council of the MSMS heartily endorses the plan to enlarge the tuberculosis facilities of the state but will not interfere in any way with the methods of the Legislature in choosing a site or attempt to influence any such choice."

- Statement of policy re extent of responsibility of committees. *(See page 356)*
- Committee reports. The following Committee reports were given consideration. (a) Tuberculosis Control, meeting of February 6; (b) Committee to Study Basic Science Act, meeting of February 15; (c) Special Committee on Education, meeting of February 20; (d) Public Relations Committee, meeting of February 20; (e) Liaison Committee with Insurance Underwriters Association, meeting of January 31; (f) Distribution of Medical Care Committee, meeting of February 1; (g) Maternal Health Committee, meeting of February 6; (h) Rheumatic Fever Control Committee, meeting of February 7; (i) Medical Procurement Advisory Committee, meeting of February 8; (j) Infectious Diarrhea Committee, meeting of February 14.

ARMY ORDERS DUAL PURPOSE BUSSES FOR PASSENGER AND AMBULANCE USE

A new dual-purpose, 37-passenger bus, which can be converted quickly into an efficient ambulance for use in any emergency, has been designed by the Army Ordnance Corps and 1,509 of them ordered, the Department of the Army has announced.

The busses, which will be manufactured by the Twin Coach Company of Kent, Ohio, are to be allocated to Army installations throughout the country. Total cost of the contract is $19,617,000.

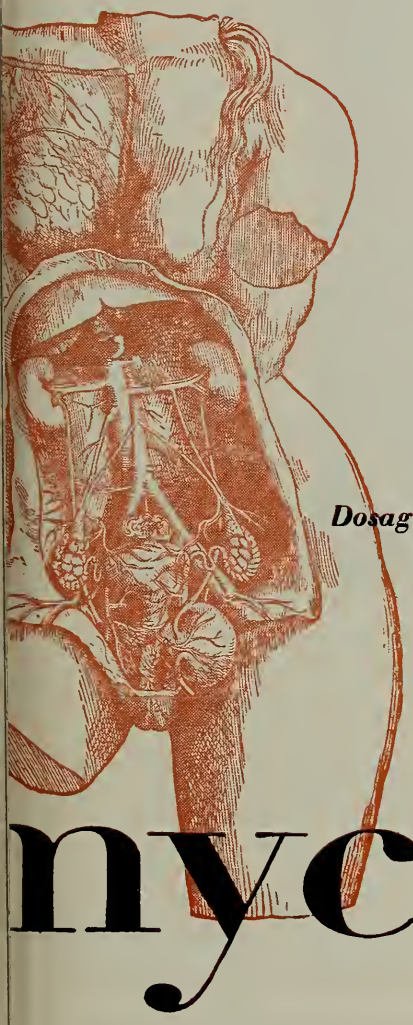
The Army-designed bus can be made ready to transport a total of fourteen litters in less than thirty minutes. Seats can be removed in forty-five minutes or less to accommodate twenty-one litters. The cost of special equipment necessary to convert a bus for ambulance service is approximately four per cent of the vehicle's total cost.

With the exception of two rear doors, the vehicle is similar in appearance to an inter-city passenger bus. The rear doors expedite the moving of casualties. The interior of the bus is equipped with removable folding-type seats.

EDITOR'S NOTE: This is a direct application of the suggestion of Michigan's Dr. John R. Rodger of Bellaire regarding the use of school busses as emergency ambulances.

STETRICAL AND GYNECOLOGICAL PATIENTS

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"In cases in which there is no organic or obstructive disease, the response to Terramycin as a urinary antiseptic is prompt and effective."

"The patients with pyelitis of pregnancy or simple postoperative cysto-ureteritis responded very promptly....There was a prompt drop in temperature, disappearance of pyuria and bacilluria, and symptomatic relief."

Douglas, R. G.; Ball, T. L., and Davis, I. F.: California Med. *73*:463 (Dec.) 1950.

Dosage: 2 Gm. daily by mouth in divided doses q. 6 h. is suggested for most acute infections. In severe infections, a high initial dose (1.0 Gm.) or higher daily dosages (3 to 6 Gm.) should be used. Treatment should be continued for at least 48 hours after the patient's temperature has become normal and acute symptoms have subsided.

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Woman's Auxiliary to the Michigan State Medical Society

Twenty-fifth Anniversary



Mrs. Guy L. Kiefer

This year marks the twenty-fifth anniversary of the founding of the Woman's Auxiliary to the Michigan State Medical Society. Shall we "Turn time back in its flight" and look at the beginnings of our organization that we may gain perspective and evaluate our efforts?

The great "Family Tree" of the Woman's Auxiliary to the American Medical Association was rooted and nourished in the richly productive soil of Texas. In May, 1917, the Woman's Auxiliary to the Dallas Medical Society was formed and created the nucleus which was to expand across the country. The primary purpose at that time was to provide social entertainment for the wives of doctors attending medical meetings and to afford any assistance the husbands might request—a very small beginning for the present loyal and efficient army that has so competently aided in the preservation of the American way of life as applied to the medical profession.

In the year 1926, a group of doctors' wives became known as the Woman's Auxiliary to the Michigan State Medical Society under the leadership of Dr. Caroline Bartlett Crane. History relates that Dr. Crane conceived the idea and our beloved Mrs. Guy L. Kiefer promoted it. There is no record that could convey the amount of work involved in expanding an organization of this kind. Nor could such a record describe the moments of discouragement and the determined renewal of effort; one has to live those moments. But to anyone who looks back at the beginning and has a basis of comparison with the present, it becomes very clear that there is a reason for speaking of Mrs. Kiefer as the "Mother" of this organization.

The Auxiliary to the Michigan State Medical Society was formally organized at Mackinac Island, June 16, 1927, by Dr. Herbert Randall of Flint, with Dr. Caroline Bartlett Crane of Kalamazoo as chairman. Mrs. Guy L. Kiefer was elected president. Twenty-eight members signed the roll at that first meeting. Today, twenty-five years later, the membership is approximately 2000 and the national membership numbers over 50,000; which verifies the adage "Great Oaks from Little Acorns Grow."

During the Auxiliary's entire history, Mrs. Guy L. Kiefer has been a colorful and fascinating figure. Full of enthusiasm, gifted with a charming and gracious personality, with a deep veneration for the medical profession, a great understanding of its problems and a regard for the sanctity of the physician-patient relationship, she was an ideal person to initiate other doctors' wives into the privileges of the Auxiliary. Always she has worked unceasingly with the Auxiliary in its efforts to assist in the projects of the Michigan State Medical Society, and she has earned a lasting place in the annals of this group. An evidence of the esteem in which she was held was the adoption of the following resolution:

The Woman's Auxiliary to the Michigan State Medical Society, convened in Grand Rapids, Michigan, September 17, 1941, at their fifteenth annual meeting,

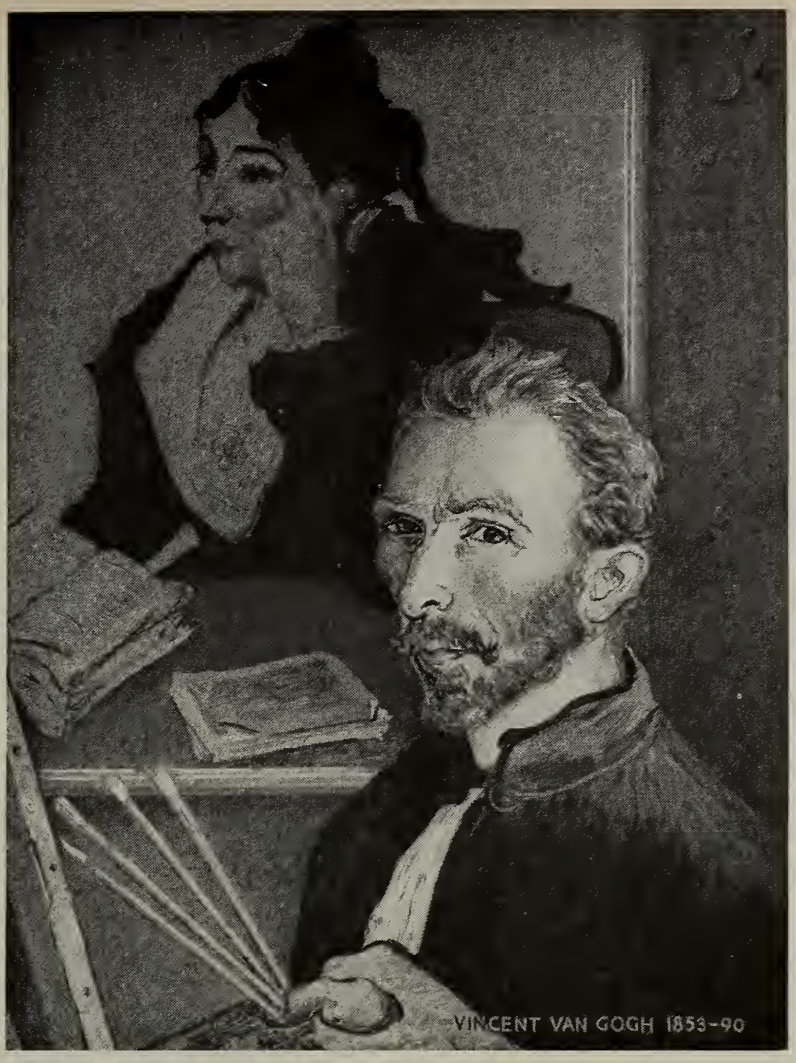
Do Hereby Resolve

To extend to Mrs. Guy L. Kiefer on the occasion of her seventy-fifth birthday, November 3, 1941, our best wishes and also to express our sincere appreciation for the many years of service and inspiration she has been to the auxiliary.

Mrs. William J. Butler, *President*
Mrs. Henry J. Pyle, *Secretary*

One could not write a history of the Auxiliary to the Michigan State Medical Society without recognizing the service given by Mrs. Kiefer in her untiring promotional work of those early years, nor for her continuing loyalty to and affection for the Medical Society and everything for which it stands. Neither could one forget the contribution that each of the following women who have acted as president has made.

(Continued on Page 366)



★ *Epileptic Men of Genius* ★

The Dutch painter, Vincent Van Gogh, one of the masters of Post-Impressionism, suffered from the psychic equivalent type of epilepsy. During one of his many periods of confusion he cut off one of his ears and presented it to a lady friend.

Comparative studies have shown that in some cases better control of grand mal as well as petit mal seizures can be obtained with Mebaral than with corresponding doses of other antiepileptic drugs. Mebaral produces tranquillity with little or no drowsiness. It is particularly desirable not only in epilepsy but also in the management of anxiety states and other neuroses. The fact that Mebaral is almost tasteless simplifies its administration to children. Average dose for children ½ to 3 grains, adults 3 to 6 grains daily. Tablets ½, 1½ and 3 grains.

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(Continued from Page 364)

PAST PRESIDENTS

*Dr. Caroline Bartlett Crane, Kalamazoo	1926
Mrs. Guy L. Kiefer, Detroit	1927-1928
Mrs. L. J. Harris, Jackson	1929-1930
Mrs. J. Earle McIntyre, Lansing	1931-1932
Mrs. S. A. Mercer, Pontiac	1932-1933
Mrs. E. L. Whitney, Detroit	1933-1934
*Mrs. F. T. Andrews, Kalamazoo	1934-1935
Mrs. A. M. Giddings, Battle Creek	1935-1936
Mrs. A. V. Wenger, Grand Rapids	1936-1937
Mrs. G. C. Hicks, Jackson	1937-1938
Mrs. P. R. Urmston, Bay City	1938-1939
Mrs. L. G. Christian, Lansing	1939-1940
Mrs. R. V. Walker, Detroit	1940-1941
Mrs. W. J. Butler, Grand Rapids	1941-1942
Mrs. G. L. Willoughby, Flint	1942-1943
Mrs. J. G. Walch, Escanaba	1943-1944
Mrs. H. L. French, Lansing	1944-1945
Mrs. Lloyd C. Harvie, Saginaw	1945-1946
Mrs. Retla Alter, Jackson	1946-1947
Mrs. T. Grover Amos, Detroit	1947-1948
Mrs. W. L. Dixon, Grand Rapids	1948-1949
Mrs. Don R. Wright, Flint	1949-1950

*Deceased

Following the pattern established by Mrs. Kiefer, each succeeding president has given her best effort to extending the organization and adhering to the standard of ethics which distinguishes the medical profession.

In the early years it was exceptional for medical men to include their wives in a mutual program relating to the profession which they, themselves, esteemed so highly and which, up to that time, had been kept apart from their home lives. However, the object of the women was *not* to invade that privacy but to devote their interests to the part of life that a busy doctor could not manage; to give the community service that their husbands did not have time to give and in every way to sublimate themselves to the ultimate good of the medical profession.

The various county auxiliaries have had, for years, their special important local projects such as aiding in the promotion or the sponsoring of:

Cancer Detection Centers
Easter Seals for the Michigan Society for Crippled Children
Red Cross Work and the Red Cross Blood Donor Program
Nurses' Recruitment, Nurses' scholarships and financial assistance for nurses.
Cerebral Palsy Clinics
Public meetings on Mental Hygiene
Study groups for medical legislation and numerous other projects.

In some instances local auxiliaries have sponsored money-raising projects for such things as:

Gifts to patients in sanatoriums
Loan closets for patients
Gifts for orphans
Building funds for camps, hospitals and sanatoriums.

Our state projects are as follows, many of them established several years ago:

Student Loan Fund
Promotion of "Hygeia" Magazine
Collecting of Medical and Surgical Relief Supplies
Promoting and sponsoring The Tuberculosis Speaking Project
Promotion of Blue Cross and Blue Shield Voluntary Insurance plans
Promoting the Medical Associates Program

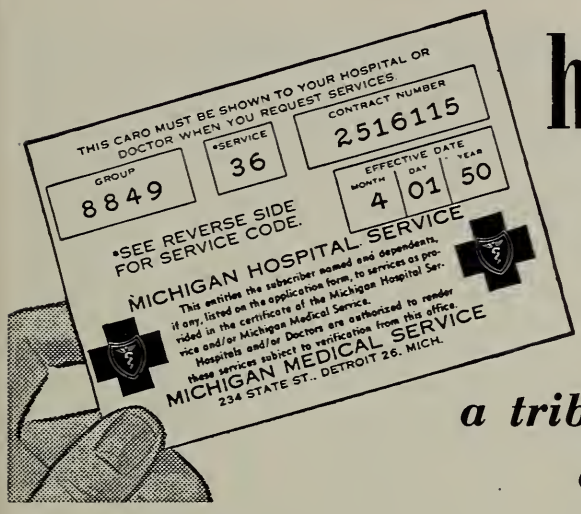
There have been other state Health projects sponsored by the Auxiliary which have become laws of our state, such as the requirement of health examinations in order to obtain a marriage license.

We have also worked on the CAP project. CAP, which means Co-operation of the American People, was organized during 1948-1949 and is the first project in which the individual doctor's wife gave her best effort so that medical practice as we have known it in the United States for the past one hundred years might continue. This program, or similar ones, was not only carried on by the members of the medical profession and their wives in Michigan but also in all the other 47 states. All reports show that CAP was a tremendous success. So during the twenty-five years of the auxiliary's existence the doctors' wives of Michigan have gradually learned ways to assist without intruding, and in the struggle to keep the medical profession from becoming another federal project their work has been of incomparable value.

It would be interesting, if one had space, to trace the development of this organization through the various progressive steps made by each president and her officers, but that does not seem feasible now. However, during the last several years more and more attention has been paid to the formation of auxiliaries in the counties throughout the state. This expansion seemed to become more active about 1945 and a closer co-operation with the medical society was also attained. During the following years the membership increased rapidly and new county auxiliaries were constantly formed. Where there was no local organization members-at-large were encouraged to join the state group, so fairly complete representation was made possible. In 1948, the state membership had grown to such proportions it was decided by the State Board that the state should be divided into Districts with

(Continued on Page 370)

One-Third of the people in Michigan have this non-profit protection



a tribute to the Doctors and Hospitals of Michigan

The record of growth of Blue Cross-Blue Shield is an amazing one. Every year since these plans were started has seen substantial increases both in membership and in dollar value of benefits paid. In the past twelve years, for example, over $169,750,000 has been paid out by the Plans in health-care benefits.

Here is clear evidence that your program is meeting the needs of the people . . . providing them with a bulwark against the catastrophic costs of illness on a wholly non-profit voluntary basis.

Below is our annual report of our stewardship of your Blue Cross and Blue Shield plans:

STATEMENT OF CONDITION

Report of Condition as of the Close of Business, December 31, 1950

MICHIGAN HOSPITAL SERVICE

ASSETS

Cash in Banks and Office	$ 4,616,790.65
United States Treasury and Defense Bonds	7,392,346.08
Accrued Interest	46,260.78
Subscription Fees—Receivable	185,912.08
Other Assets	254,522.81
Total Assets	$12,495,832.40

LIABILITIES AND RESERVES

Reserves for Payment for Services Rendered Subscribers (Including (Unreported)	$ 5,959,340.34
Reserve for Unearned Subscription Fees	2,304,766.22
Reserve for Contingencies	4,136,465.05
Other Liabilities	95,260.79
Total Liabilities and Reserves	$ 12,495,832.40
Total Benefits Paid Since Inception	$114,021,947.28

MICHIGAN MEDICAL SERVICE

ASSETS

Cash in Banks and Office	$3,262,782.62
Real Estate—Home Office Property	668,071.07
United States Government Bonds	2,213,405.47
Interest and Rents Due and Accrued	38,213.01
Subscription Fees—Receivable	88,661.57
Funds Advanced for Veterans Administration	136,221.79
Other Assets	72,470.44
Total Assets	$6,479,825.97

LIABILITIES AND RESERVES

Reserve for Payments for Services Rendered Subscribers (Including Unreported)	$ 2,682,760.00
Reserve for Unearned Subscription Fees	1,213,208.03
Reserve for Contingencies	2,550,119.72
Other Liabilities	23,738.22
Total Liabilities and Reserves	$ 6,479,825.97
Total Benefits Paid Since Inception	$55,760,426.72

BLUE CROSS Michigan Hospital Service — **BLUE SHIELD** Michigan Medical Service

234 State Street • Detroit 26

MSMS County Secretaries-Public Relations Conference

Detroit, January 21, 1951

William M. LeFevre, M.D., Chairman of County Society Secretaries during the past year, welcomed 165 registrants at the 1951 County Secretaries-Public Relations Conference, held at the Book-Cadillac Hotel, Detroit, on January 21. The five morning speakers on "Channels and on Media of Communication" were E. J. McCormick, M.D., Toledo, Ohio, Trustee of the AMA; C. E. Umphrey, M.D., Detroit, MSMS President; H. J. Meier, M.D., Coldwater, member of the MSMS Public Relations Committee; Jack Pickering, Detroit, Science writer for the *Detroit Times;* and Professor A. Westley Rowland, Alma, Director of Publicity of Alma College.

Major General George E. Armstrong, Washington, D. C., Deputy Surgeon General of the Army, was guest speaker at the noon-day meeting, presided over by R. J. Hubbell, M.D., Kalamazoo, Chairman of the MSMS Council. General Armstrong's subject was "The Wartime Role of the M.D.—In and Out of Uniform."

Governmental and Economic Questions were presented at the afternoon public relations session, with L. W. Hull, M.D., Detroit, Chairman of the MSMS Public Relations Committee, in charge.

William Palmer, Lansing, Executive Secretary of the Michigan Petroleum Industries Committee, outlined in a practical manner "Governmental Contacts and Legislative Outlook for 1951"; Robert B. L. Murphy, Madison, Wisconsin, Legal Counsel for State Medical Society of Wisconsin, gave a highly illuminating, interesting—and frequently sardonic—review of "Tax Planning for the Physician." Earl R. Bramblett, Detroit, Labor Relations Department, General Motors Corporation, spoke in a realistic manner on "Medical Service in Labor Relations." L. Fernald Foster, M.D., Bay City, MSMS Secretary, ended the day's Conference by speaking on "Co-ordination of Medical and Health Organization."

Ample time was given both in the morning and in the afternoon for audience participation.

The 165 attendants were representative of the following groups:

County Secretaries—J. E. Mahan, M.D., Allegan (Allegan); L. Fernald Foster, M.D., Bay City (Bay-Arenac-Iosco); D. B. Johnson, M.D., Coldwater (Branch); H. R. Bodine, M.D., Battle Creek (Calhoun); Bruno Cook, M.D., Westphalia (Clinton); N. L. Lindquist, M.D., Escanaba (Delta-Schoolcraft); E. T. Palm, M.D., Crystal Falls (Iron-Dickinson); E. P. Griffin, Jr., M.D., Flint (Genesee); A. B. Aldrich, M.D., Houghton (Houghton-Baraga-Keweenaw); J. L. Isbister, M.D., Lansing (Ingham); H. W. Porter, M.D., Jackson (Jackson); G. H. Rigterink, M.D., Kalamazoo (Kalamazoo); J. R. Brink, M.D., Grand Rapids (Kent); R. M. Duffy, M.D., Pinckney (Livingston); D. B. Wiley, M.D., Utica (Macomb); J. F. Konopa, M.D., Manistee (Manistee); J. A. White, M.D., Big Rapids (Mecosta-Osceola-Lake); B. E. Henig, M.D., Grayling (North Central Counties); W. M. LeFevre, M.D., Muskegon (Muskegon); J. M. Cook, M.D., Newaygo (Newaygo); A. R. Young, M.D., Pontiac (Oakland); Robert Bucklin, M.D., Saginaw (Saginaw); R. C. Brown, M.D., Owosso (Shiawassee); and G. T. McKean, M.D., Detroit (Wayne).

Executive Secretaries—Sara M. Warren, Flint (Genesee) and Else Kolhede, Detroit (Wayne).

Officers—C. E. Umphrey, M.D., Detroit, President; O. O. Beck, M.D., Birmingham, President-Elect; L. Fernald Foster, M.D., Bay City, Secretary; A. S. Brunk, M.D., Detroit, Treasurer; R. H. Baker, M.D., Pontiac, Speaker—House of Delegates; J. E. Livesay, M.D., Flint, Vice-Speaker—House of Delegates; Wilfrid Haughey, M.D., Battle Creek, Editor; and W. E. Barstow, M.D., St. Louis, Immediate-Past President.

Councilors—L. W. Hull, M.D., Detroit, 1st District; R. S. Breakey, M.D., Lansing, 2nd District; G. W. Slagle, M.D., Battle Creek, 3rd District; R. J. Hubbell, M.D., Kalamazoo, 4th District; J. D. Miller, M.D., Grand Rapids; 5th District; H. B. Zemmer, M.D., Lapeer, 7th District; L. C. Harvie, M.D., Saginaw, 8th District; G. B. Saltonstall, M.D., Charlevoix, 9th District; A. H. Miller, M.D., Gladstone, 12th District; W. S. Jones, M.D., Menominee, 13th District; J. S. DeTar, M.D., Milan, 14th District; D. B. Wiley, M.D., Utica, 15th District; W. D. Barrett, M.D., Detroit, 16th District; W. B. Harm, M.D., Detroit, 17th District.

Editors—A. C. Pfeifer, M.D., Mt. Morris *(Bulletin of Genesee County Medical Society);* H. W. Porter, M.D., Jackson *(Jackson County Bulletin);* G. H. Rigterink, M.D., Kalamazoo *(Bulletin of Kalamazoo Academy of Medicine);* and E. H. Heneveld, M.D., Muskegon *(Muskegon County Medical Society Bulletin).*

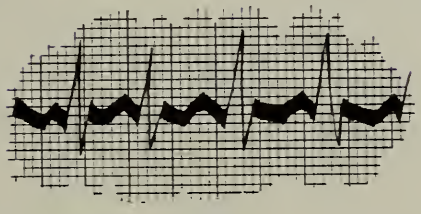
Public Relations Committee—R. A. Frary, M.D., Monroe; A. B. Gwinn, M.D., Barry; S. W. Hartwell, M.D., Muskegon; L. T. Henderson, M.D., Wayne; H. C. Hill, M.D., Livingston; K. P. Hodges, M.D., Ingham; A. B. Hodgman, M.D., Kalamazoo; L. W. Hull, M.D., Wayne; K. H. Johnson, M.D., Ingham; F. J. Kemp, M.D., Oakland; J. E. Livesay, M.D., Genesee; J. J. McCann, M.D., Ionia-Montcalm; H. J. Meier, M.D., Branch; E. S. Oldham, M.D., Gratiot-Isabella-Clare; C. A. Payne, M.D., Kent; R. C. Peckham, M.D., North Central Counties; J. R. Pedden, M.D., Kent; A. C. Pfeifer, M.D., Genesee; L. A. Pratt, M.D., Wayne; W. Z. Rundles, M.D., Genesee; G. B. Saltonstall, M.D., Northern Michigan; A. H. Steele, M.D., Van Buren; R. Wallace Teed, M.D., Washtenaw; Arch Walls, M.D., Wayne; C. L. Weston, M.D., Shiawassee; A. H. Whittaker, M.D., Wayne; V. M. Zerbi, M.D., Washtenaw, and H. J. Meier, M.D., Coldwater.

(Continued on Page 370)

Effective against many bacterial, and rickettsial infections, as well as certain protozoal and large viral diseases.

AUREOMYCIN

Hydrochloride Crystalline



The Internist today is less concerned than in former years over cases of pneumonia. Once highly fatal, this disease has been all but conquered by modern chemotherapy. For many pneumonias—bacterial, rickettsial or viral—aureomycin is often a preferred drug.

Packages

Capsules: Bottles of 25 and 100, 50 mg. each capsule. Bottles of 16 and 100, 250 mg. each capsule.
Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

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AMERICAN Cyanamid COMPANY
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(Continued from Page 368)

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Other County Medical Society Representatives—R. H. Alter, M.D., Jackson; P. S. Bradshaw, M.D., Muskegon; F. J. Busch, M.D., Saginaw; M. S. Chambers, M.D., Genesee; G. V. Conover, M.D., Genesee; E. L. Copeland, M.D., Van Buren; J. J. Coury, M.D., Wayne; J. B. Holst, M.D., Jackson; David Kahn, M.D., Ingham; T. R. Kirk, M.D., Northern Michigan; J. R. MacGregor, M.D., Kalamazoo; H. R. Moore, M.D., Newaygo; R. L. Novy, M.D., Wayne; G. C. Penberthy, M.D., Wayne; Sydney Scher, M.D., Macomb; R. I. Seime, M.D., Washtenaw; W. W. Stevenson, M.D., Genesee; H. L. Van Haltern, M.D., Oakland; C. H. Wallman, M.D., Gratiot-Isabella-Clare; and D. R. Wright, M.D., Genesee.

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Others Present—A. Westley Rowland, Alma College; E. R. Bramblett, General Motors Labor Relations Department; William Palmer, Petroleum Industries Committee; Lawrence Drake, Michigan Hospital Service; J. W. Castellucci, L. G. Goodrich, H. S. Hosmer, and A. T. Perruso of Michigan Medical Service; Peter E. Klein, Michigan Blue Cross-Blue Shield; L. H. Schriver, M.D., Blue Shield Commission; Frank Smith, Blue Cross Commission; E. H. Wiard, Michigan Health Council; S. A. Campbell, MSMS CAP Field Secretary; J. Joseph Herbert, MSMS General Counsel; Leonard Garrard, Detroit Department of Board of Health; Capt. L. A. Potter, Michigan Department of Health; O. D. Stryker, M.D., Macomb County Health Department; Carleton Dean, M.D., Michigan Crippled Children Commission; E. J. McCormick, M.D., AMA Board of Trustees; G. W. Cooley, Asst. Sec., Council on Medical Service, AMA; T. P. Cook, M.D., Minneapolis, Minn., Wallace M. Jensen, Detroit, Mrs. Irma Nelson, Lansing, D. E. Ford, MSMS CAP Field Secretary, Mrs. L. Fernald Foster, Bay City, Mrs. Wm. J. Burns, Jack Pickering, Detroit, R. B. L. Murphy, Madison, Mrs. Wm. Palmer, and Major General George E. Armstrong, Washington, D. C.

WOMAN'S AUXILIARY

(Continued from Page 366)

a Director for each, the Directors being elected by the Board. During the succeeding years the effort to extend the membership of the Auxiliary was continued and at present we have 42 counties and nine counties with members-at-large. There are only four County Medical Societies with *no* auxiliary members, i.e., Ionia-Montcalm, Barry, Gogebic, Chippewa-Mackinac.

Under Mrs. Oscar Stryker's able guidance, the Auxiliary has achieved much this year. Among other progressive steps, the date of the Board meeting has been changed from Fall to Spring, which will make possible advance planning of the following year's work. The meeting will also continue for two days instead of one.

Mrs. Stryker brought to the office of President an unusual understanding of the purpose of the auxiliary and considerable experience in organization which has been invaluable. She had served as Chairman of Organization and assisted with the expansion accomplished during previous years. She is endowed with executive ability, a willingness to work for an objective and a seemingly endless patience in accomplishing that objective.

Starting with twenty-eight members in 1927, with our beloved Mrs. Guy L. Kiefer as president, your Auxiliary in twenty-five years has covered forty-two counties, has a membership of 2,000, has expanded Public Relations in every community in which it is active, has earned the appreciation of the medical profession and brought about a spirit of co-operation and friendship between the wives of the doctors. And, as it began with able leadership, so it carries on with Genevieve Stryker capably conducting it toward its Silver Anniversary.

To each of the splendid women who have acted as president, we owe much, for each one has left an indelible mark on the history and accomplishments which trace the progress of this group of women.

Our humble desire was and is to be of service to a profession revered since the days of the Great Physician himself, and may we look forward to many more years of active participation in the aims and desires of the members of the Michigan State Medical Society as they hold their honored place in the American Way of Life.

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Cancer Comment

TERMINAL CARE FOR CANCER PATIENTS

A report on terminal care for cancer patients has been released recently by The Central Service for the Chronically Ill of the Institute of Medicine of Chicago, Illinois. While the study covered a three-year period and was confined to Chicago and Cook County, the information gained from the records of 5,978 persons which comprised the study developed some generalizations about this problem that should be of interest to every physician and every community in the country.

Among the conclusions reached in the study, the following are of general interest:

"Terminal care cannot be differentiated sharply from other care required by cancer patients. Facilities and services providing such care, therefore, should operate by close co-ordination with those providing treatment services for cancer patients."

The primary site of cancer is the chief determining factor in the length of time terminal care is required. The terminal care period was found to be longest for skin cancer and shortest for cancer of the respiratory system. The average length of time required for all cancers was ninety-three days.

The study showed that there was one terminal care patient for every four annual cancer deaths. Applied to Michigan experience, this ratio indicates that there are at this time at least 2,175 cancer patients in this state in terminal stages of their disease. The study further showed that 20 per cent of all fatal cancer patients could, and preferred to, remain in their homes for their terminal treatment. For the other 80 per cent, provision should be made for beds in hospitals and related institutions for their care.

These beds should be in the ratio of one bed for every nine annual cancer deaths. In Michigan, this would call for 966 beds for terminal care of cancer patients. For cancer patients receiving such care in their homes, a ratio of one patient to every six annual cancer deaths was established.

"The median age at death among the 5,978 cancer patients included in this study was sixty-two years. Fifty-one per cent of the deaths occurred among men and 49 per cent in women."

That cancer patients often have other diseases and disabling conditions concurrently with their cancer was revealed in this study. Among the patients coming to autopsy, 84 per cent were found to have had one or more additional diseases.

Contrary to a common fallacy that advanced cancer is always a foul-smelling open ulcer, more than half of the patients studied had no open lesions. In cases with open ulcers it is possible to prevent obnoxious conditions by frequent change of dressings and good nursing care.

As to the nursing requirements for adequate terminal care of such patients, an average of four hours of bedside care per patient per day was needed. The study revealed that:

"More nursing time and a better quality of nursing services are needed both in institutional facilities and for care of patients in their homes. More professional nurses are needed. There is an even greater need for properly trained practical nurses."

The study showed a deficiency in the social case work services in the institutions. This was especially true in those cases where a patient on release from an institution left behind the staff physician who had been in charge and had to seek an outside physician for further home care. Often the patient was at a loss as to how to proceed to obtain another physician's services and adequate and competent social service attention was found invaluable in such cases.

Costs of terminal care are discussed in some detail in this report. However, as costs vary from place to place and time to time the survey figures are not quoted. The report stated that—"More than half of all patients requiring terminal care require some help in meeting the costs of adequate care. In most of the instances the patient and his family can pay a part of the cost of the care required, but not all."

For many years, the question of the care of terminal cancer patients in general hospitals or in institutions especially devoted to such care has never been settled. The report takes an unequivocal stand on this question by stating:

"Facilities for the terminal care of cancer patients should not be set up as specialized institutions operated solely for terminal care of cancer patients. Such a plan means that these are places where patients go to die from cancer. Specialization of this type is almost inhuman in the emotional trauma it produces for the patient and his family. In addition, it results in unnecessary duplication and overlapping in community services with consequent increases in the total cost to the community."

The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
VOLUME 50 APRIL, 1951 NUMBER 4

The Clinical Importance of "Early Cancer"

By John R. McDonald, M.D., and
Lewis B. Woolner, M.D.
Rochester, Minnesota

THE CAMPAIGN for cancer control which has been conducted by state and national organizations has, in part, been directed toward the recognition and eradication of lesions which are thought to be either "precancerous" or "early cancer." Knowledge of the significance of these various lesions is necessary to enable the physician to treat these lesions intelligently.

The clinician must realize that there is a phase in the development of certain common cancers in which there are few or no symptoms and no gross tumor. Lesions in this early stage are completely curable if they are recognized and treated properly. This stage of the disease has only recently been recognized; it is known as "carcinoma in situ." The term "carcinoma in situ" has been coined to designate a lesion which cytologically resembles ordinary cancer but in which there is no infiltration into the subjacent tissue. The term "preinvasive" would appear to be a better and more descriptive term because it lays stress on the eventual invasive character of the lesion.

Evidence has been presented that a preinvasive stage of carcinoma exists in many organs and tissues of the body. In this paper, three common sites of carcinoma—breast, cervix and colon—will be considered.

Read at the meeting of the Michigan State Medical Society, Detroit, Michigan, September 22, 1950. From the Division of Surgical Pathology, Mayo Clinic, Rochester, Minnesota.

Breast

Comedo Carcinoma.—An intraductal or comedo carcinoma is a lesion in which cancer cells fill the ducts of the breast. Any portion of the duct system may be involved. A distinction should be made between comedo carcinoma, which is entirely intraductal, and one in which there is infiltration beyond the membrane of the duct. Lesions in which no infiltration can be found represent carcinoma in situ.

Incidence: Comedo carcinoma, as the term is commonly used to denote a condition in which plugs of pasty material can be expressed from the surface of the tumor, is a relatively uncommon type of cancer of the breast comprising, according to Anderson, approximately 10 per cent of the total. This figure undoubtedly includes all carcinomas of comedo type, whether they exhibit areas of infiltration or not. It is probably true that the majority of comedo carcinomas are infiltrative by the time they are discovered and surgically removed. The noninfiltrative form frequently presents no palpable tumor and, hence, its presence is not readily recognized. True noninfiltrative comedo carcinomas, according to Foote and Stewart,[8] comprise only 1 per cent of removed mammary cancers.

Gross Appearance: A comedo carcinoma usually is an ill-defined lesion in the breast in which the involved ducts may be recognized by the plugs of tumor cells which can be expressed from the cut surface. These plugs are grayish white, fairly solid and represent partially necrotic tumor tissue. The lesion may be diffuse and involve a large area of the breast or it may involve only a few ducts. Frequently it is multicentric. Characteristically, a tumor mass is not present. When a tumor mass is associated with a comedo carcinoma, it usually indicates that infiltration has occurred.

Microscopic Appearance: Microscopically, the

ducts of the breast are filled with highly cellular epithelial tissue which has all the cytologic characteristics of cancer (Fig. 1a). The centers of these epithelial masses may undergo necrosis, and rarely may be calcified. At times, the tumor cells form a definite glandular pattern within the duct; occasionally production of mucus is prominent. The microscopic appearance of infiltrative comedo carcinoma is not distinctive (Fig. 1b). The only feature distinguishing it from ordinary cancer of the breast is the more marked intraductal growth visible both grossly and microscopically. The infiltrative portion of such a tumor does not differ histologically from that seen in ordinary (scirrhous or medullary) carcinoma.

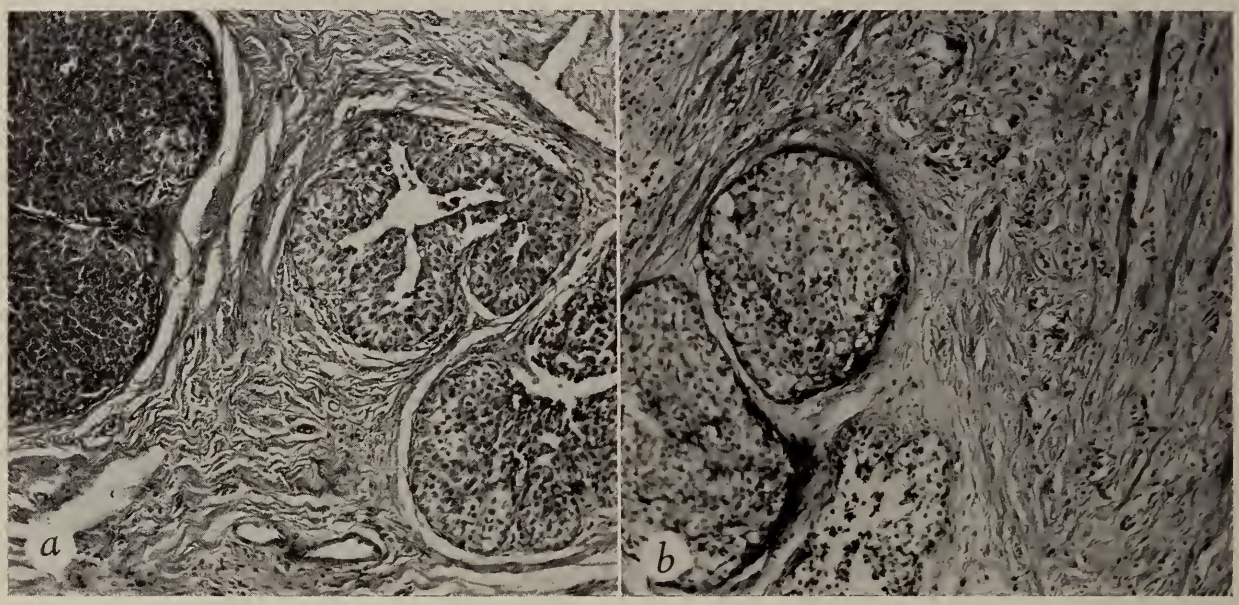


Fig. 1. (a) Comedo carcinoma confined to the ducts (hematoxylin and eosin; ×90); (b) comedo carcinoma with infiltration (hematoxylin and eosin; ×110).

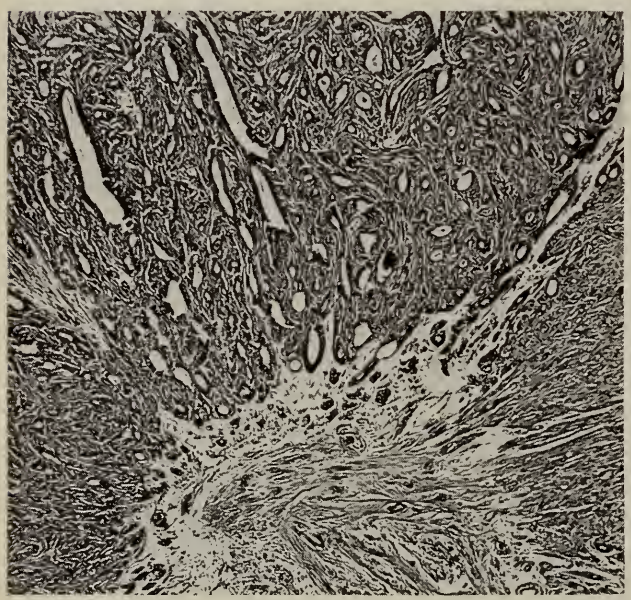


Fig. 2. Sclerosing adenosis of the breast: marked fibrosis of hyperplastic mammary lobules (hematoxylin and eosin; ×50).

Clinical Course: As is observed of carcinomas in situ elsewhere, a comedo carcinoma of the breast should be characterized by a latent period between the appearance of such a lesion and infiltration. It would appear that a comedo carcinoma may, in some instances, have a prolonged noninfiltrative stage. Some evidence for this statement can be obtained from a study of Paget's disease of the nipple, in which there is a carcinoma in situ of the nipple, with associated comedo carcinoma of the underlying mammary ducts. In the average instance of Paget's disease, the changes in the nipple which generally are recognizable clinically as eczema may be present for many years prior to the development of metastasis. Metastasis, when it occurs, is the result of the development of infiltrative carcinoma from the comedo carcinoma in the ducts.

Treatment: According to Foote and Stewart,[8] the rational treatment for noninfiltrative comedo carcinoma is simple mastectomy. It would appear to us that this is logical, because in this stage there is no likelihood of vascular invasion; hence, metastasis cannot occur. In many cases, however, simple mastectomy is not the practical method of treatment. The responsibility for determination of whether a given comedo carcinoma of the breast

is infiltrative or not is dependent entirely upon the pathologist. To examine adequately a given comedo carcinoma for determination of this point would require at least the making of semiserial sections, and since these lesions may involve a large area of the breast, this is impractical. Because of these practical difficulties in eliminating the possibility of infiltration, radical mastectomy usually is done. It should be remembered, however, that from a prognostic standpoint, it is the responsibility of the pathologist to determine the infiltrative or noninfiltrative properties of the lesion, so that the prognosis may be determined.

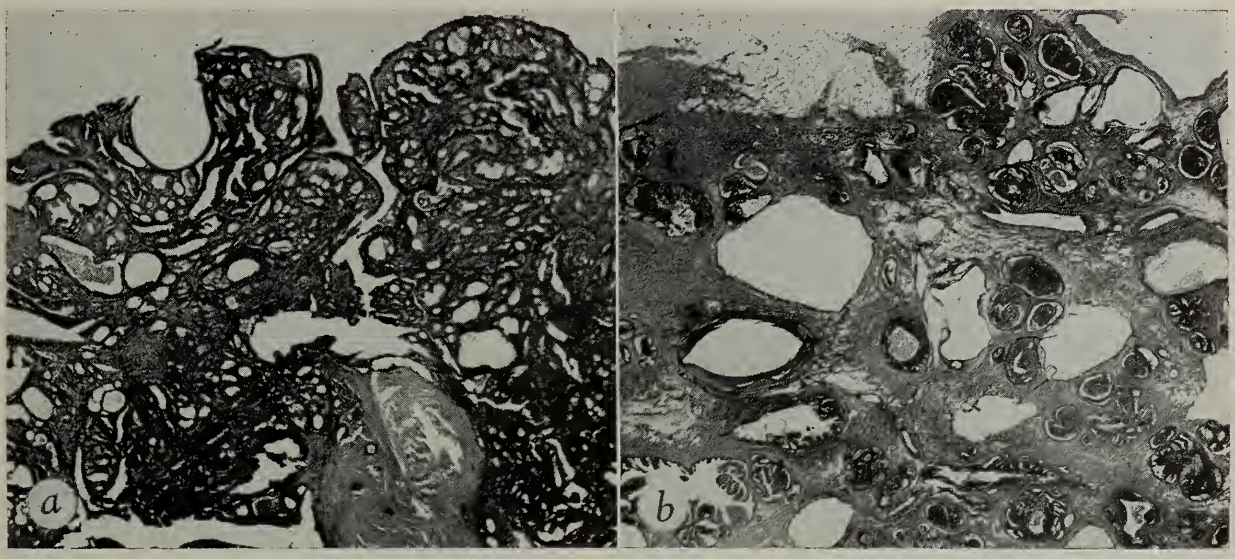


Fig. 3. (a) Single large intraductal papilloma situated in a duct near the nipple (hematoxylin and eosin; ×18); (b) multiple microscopic papillomas associated with cystic disease of the breast (hematoxylin and eosin; ×6).

Diseases of the Breast Which Simulate Carcinoma Histologically.—In any group of carcinomas of the breast there are a certain number of lesions which histologically are of questionable malignancy, but which are regarded as malignant with the consequence that radical mastectomy is done. Among these lesions are sclerosing adenosis and the proliferative variety of cystic disease in which there is marked epithelial hyperplasia in the ducts, including the formation of multiple papillomas.

Sclerosing adenosis is a condition first described by Ewing in 1940. It is seen in two forms: (1) a palpable tumor mass which occurs clinically, and (2) multiple minute nodules situated throughout the breast and discovered incidentally during microscopic examination. The tumor form is less common, but it is important to recognize it, because of its gross and histologic similarity to carcinoma. The tumor-forming variety shows a dense fibrous core intermingled and surrounded by hyperplastic mammary lobules undergoing progressive fibrosis (Fig. 2). The type which does not form a single tumor mass differs in that it is less bulky. In both forms the disease is strictly benign.

Ductal papillomas occur in two forms: (1) those involving large ducts (Fig. 3a), usually evident grossly, either single or multiple and associated with serosanguineous discharge from the nipple, and (2) those which are found in smaller ducts as an integral part of proliferative cystic disease of the breast (Fig. 3b). Both types have aroused much discussion as to their benign or malignant nature. We feel that it has not been proved that either of these lesions becomes cancerous.

Comment.—Noninfiltrative comedo or intraductal carcinoma is a lesion which is the precursor of a certain number of clinical or ordinary carcinomas of the breast. Except when the lesion in question is associated with bleeding from the nipple or when Paget's disease of the nipple is present, there is no way to anticipate the presence of such a lesion clinically. This is unfortunate, because comedo carcinoma which is not infiltrating is a completely curable disease. It seems very questionable to us that the various types of proliferative disease of the breast, including sclerosing adenosis and cystic mastitis with the formation of multiple papillomas in the ducts, are the sources of formation of carcinoma in the breast.

Cervix

Noninfiltrating Carcinoma of the Cervix.—The concept that many clinical carcinomas of the cervix have a preclinical noninvasive phase (Fig. 4)

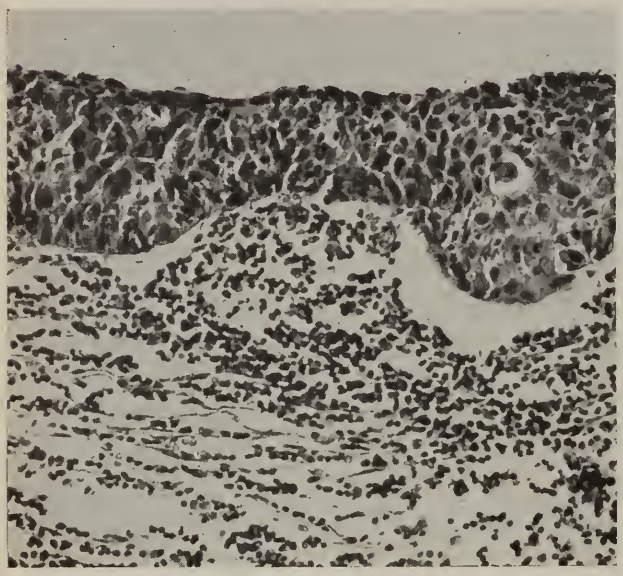


Fig. 4. Preinvasive carcinoma of the cervix. Squamous epithelium replaced by atypical cells, showing the cytologic characteristics of cancer. No invasion of underlying stroma (hematoxylin and eosin; ×200).

has become apparent within the last two decades. At present it is not known how many carcinomas of the cervix go through this phase, but the concept offers interesting possibilities and possibly an approach to the cure of carcinoma of the cervix. Interest in noninfiltrative carcinoma has been stimulated by the smear technique of detection (Papanicolaou smears).

Schiller in 1927 wrote that the earliest phase of carcinoma is noninvasive, and that this early stage is of long duration. Smith and Pemberton in 1934 presented evidence obtained in four cases of clinical carcinoma of the cervix in which earlier biopsy revealed a previously nonrecognized noninfiltrative carcinoma of four to twelve and a half years' duration.

Incidence: Pund and Auerbach found forty-seven instances (3.9 per cent) of carcinoma in situ in 1,200 surgically removed cervices; they used serial block sections cut from the entire squamocolumnar junction of the cervix. None of these lesions were invasive carcinomas. Using multiple biopsies as the method of detection, Younge and associates, in a study of 995 routine surgical biopsies, found carcinoma in situ in eleven cases, an incidence of 1.15 per cent. In numerous cases, noninfiltrative carcinoma of the cervix has been detected by the use of the smear technique. At the Vincent Memorial Hospital[6] in 5,621 vaginal smears, thirty noninfiltrative carcinomas of the cervix were detected. Fremont-Smith in 1948 reported finding four noninfiltrative carcinomas of the cervix in a series of 358 unselected patients seen in office practice. Thus, in his series, approximately 1 per cent of asymptomatic women screened by the Papanicolaou smear technique had noninfiltrative carcinoma of the cervix.

Age: On the basis of the various series reported, it would appear that the average age of a patient who has noninfiltrative carcinoma in situ of the cervix is approximately six to ten years less than that of a patient who has clinically invasive carcinoma of the cervix. This adds further credence to the assumption that carcinoma of the cervix precedes the development of many clinical carcinomas.

Anatomic Distribution.—Most investigators believe that squamous-cell carcinoma of the cervix begins at or near the squamocolumnar juncture. However, it is to be noted in the studies of Foote and Stewart[7] that the lesion may affect the endocervical canal and the deep glands of the cervix. Involvement of the mucous glands of the cervix was found in fifty-five of seventy-five cases reported by Galvin and TeLinde, an observation incorrectly interpreted by them as invasion. In Younge's experience of 135 cases, approximately 50 per cent of the lesions involved the endocervical glands. In only one case was the disease confined to the endocervical canal. This is important because in the majority of cases it is possible to visualize the lesion even though there are no diagnostic gross changes visible to the unaided eye. Younge and associates emphasized that the Schiller iodine test is very useful as a guide to the site of biopsy in noninfiltrative carcinoma of the cervix. The principle of this iodine test is that the normal squamous-cell epithelium of the cervix, because of its content of glycogen, will take up the iodine and stain it mahogany brown. The cells in a noninfiltrative carcinoma have little or no glycogen in them and do not take up the iodine; the area remains whitish. Other lesions besides noninfiltrative carcinoma will give a positive reaction to the Schiller test, but Younge suggested selecting the area adjacent to that in which a positive result of this test was obtained for a biopsy in search for a noninfiltrative carcinoma.

Evidence That Invasive Carcinoma of the Cervix Is Sometimes Preceded by Noninfiltrative Carcinoma.—Aside from the four cases of Smith and Pemberton in which this principle was illustrated, approximately fourteen cases have been reported in the literature, making a total of eighteen cases in which a carcinoma in situ was followed by an infiltrative carcinoma. In many cases of this type which have been reported, the result of the original biopsy was interpreted as indicating benignancy, so that the lesion has been classified as noninfiltrative carcinoma only in the light of present knowledge. Younge and others described a case in which a noninfiltrative carcinoma of the cervix was diagnosed eleven months prior to amputation of the cervix. At the time of examination of the surgically removed specimen, a small invasive carcinoma (5 mm. in diameter) was found at the site of the specimen taken for the original biopsy.

Treatment: Various forms of therapy have been advocated. Galvin and TeLinde have treated their patients by means of modified Wertheim hysterectomy. Pund and Auerbach suggested that total hysterectomy, with preservation of the tubes, be employed. Foote and Stewart,[7] on the basis of their anatomic study, felt that total hysterectomy, with preservation of the adnexa, was the procedure of choice. They wrote that the lesion could not always be eradicated by simple amputation of the cervix. Cauterization or conization was considered to involve some risk because of inability to define the limits of the tumor. Younge and others advocated careful evaluation in every case, especially when the patients are young women in the childbearing age. They had treated 6 patients by means of cauterization; all 6 subsequently became pregnant and bore children. In none of these patients did the lesion become invasive during the period of observation.

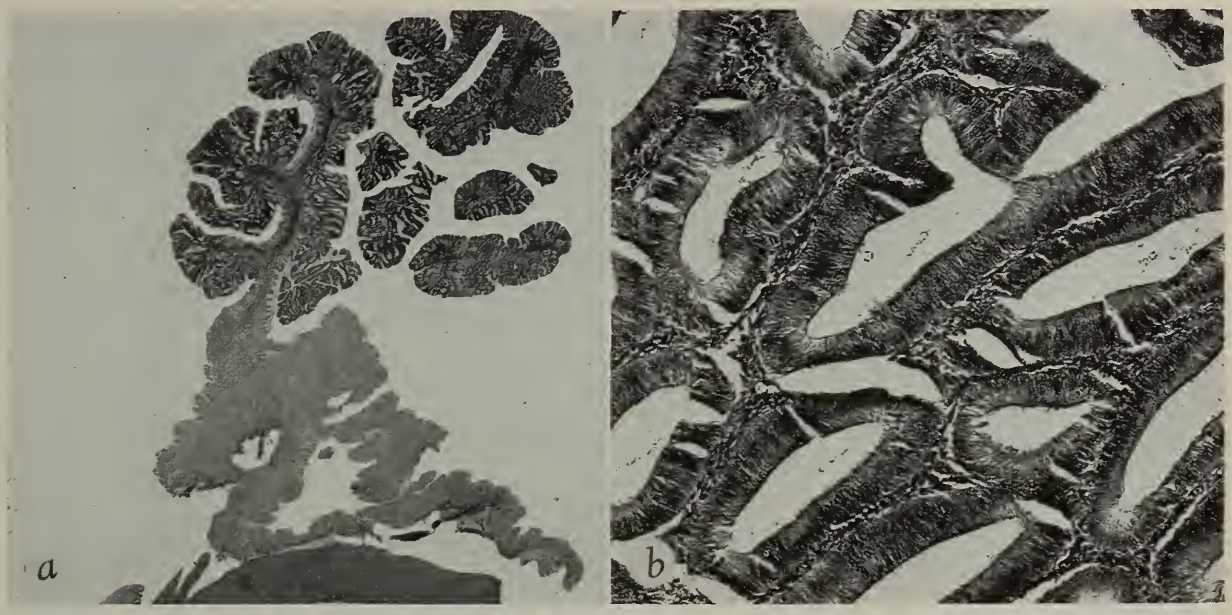


Fig. 5. Adenomatous polyp of the colon. (a) Section through an adenomatous polyp, showing no invasion of the stalk (hematoxylin and eosin; ×2½); (b) section through an area near the tip of the polyp (hematoxylin and eosin; ×115).

Comment.—Noninfiltrative carcinoma of the cervix undoubtedly is the precursor of the development of ordinary or clinical carcinoma of the cervix in a proportion of cases. It is impossible to determine what this percentage is. Noninfiltrative carcinoma may remain as such for many years. Until infiltration occurs the lesion is incapable of metastasis. There is no typical gross appearance of the lesion. It must be detected by the use of multiple routine biopsies or the Papanicolaou smear technique. If routine biopsies are to be employed, utilization of the Schiller iodine test may help.

Bowel

Adenomas of the Large Bowel.—Incidence: The incidence of adenomas of the large bowel is dependent upon the age of the patient, presence or absence of carcinoma and the care with which the bowel is examined. In a study by Helwig, in 1,460 consecutive necropsies there was a 9.5 per cent

incidence of adenomas of the large bowel. Atwater and Bargen studied the colons with a magnifying hand lens in 241 consecutive necropsies and found adenomas in 166 (69 per cent) of cases.

Relationship of Adenomas of the Colon to Carcinoma: All studies indicate that adenomatous polyps of the colon are more common in patients who have or have had carcinoma of the colon than in the general population. Dukes, in an examination of thirty-three surgically removed carcinomas of the colon, found adenomas present in twenty-five cases (75 per cent). Helwig found adenomas in thirteen cases of twenty-five large intestines that contained obvious carcinomas. Mayo and Schlicke reported that the incidence of adenomatous polyps was 34.1 per cent in a group of patients who had carcinoma of the colon and rectum.

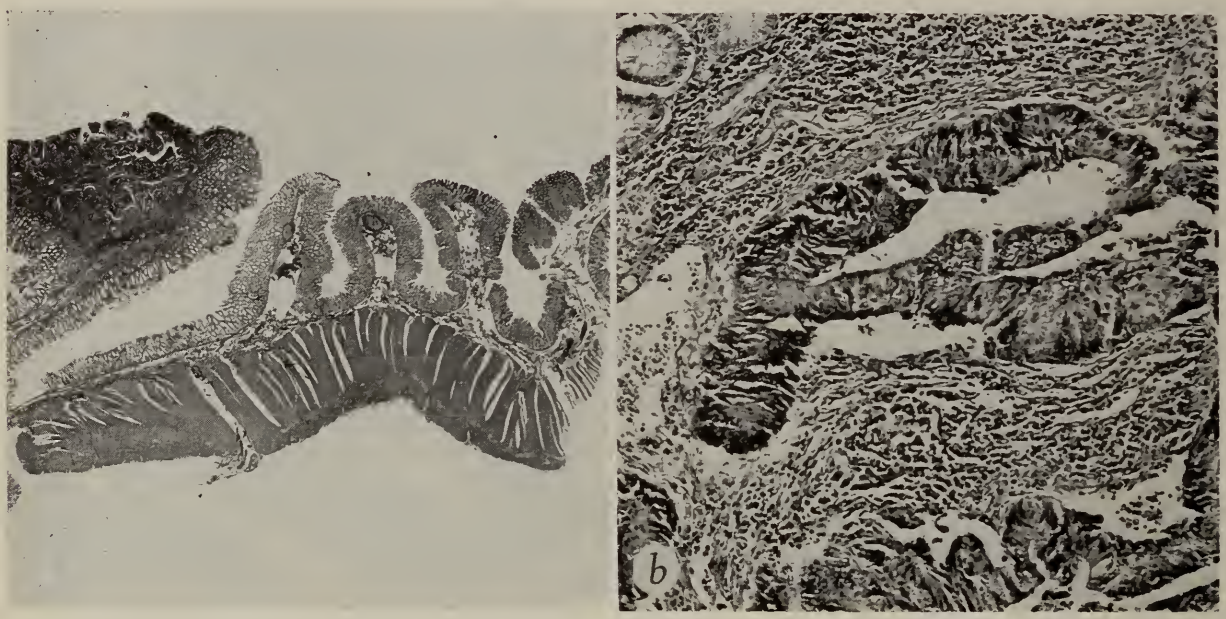


Fig. 6. Adenomatous polyp of the colon, with carcinoma at the tip. (a) Gross appearance, showing no invasion of the stalk (hematoxylin and eosin; ×4½); (b) histologic section through carcinomatous area at the tip of the polyp (hematoxylin and eosin; ×115).

It can also be shown that adenomas progress to clinical cancers, particularly in multiple polyposis. This condition, which shows a marked familial tendency, usually manifests itself in early life. Hullsiek studied 128 cases of multiple polyposis, in forty-six of which clinical carcinomas developed.

A histologic study of adenomatous polyps of the colon will show that in at least 90 per cent foci of atypical glands can be found which histologically resemble carcinoma. These cellular changes resemble infiltrative carcinoma, and yet in the average adenomatous polyp there is no invasion of the stalk (Fig. 5a and b). Usually, the glands that are formed are well differentiated, but in a rare instance they are more anaplastic (Fig. 6a and b). In spite of this histologic change, however, it usually is considered that until infiltration of wall of the bowel occurs, the lesion is incapable of metastasis (Fig. 7a and b). It would appear, therefore, that noninfiltrative adenomatous polyps of the colon can be regarded in the same light that noninfiltrative carcinoma of the breast and cervix are regarded.

Further evidence that an adenomatous polyp can become a carcinoma can be deduced from cases in which a known adenomatous polyp has become the seat of an infiltrative carcinoma. Brust, in a study of 87 cases of solitary adenomatous polyps of the rectum and sigmoid in patients who had refused treatment, found that in four who could be traced, carcinoma of the rectum and sigmoid had developed at the site of the adenomatous polyp.

Comment.—Evidence has thus been presented that adenomatous polyps are a frequent lesion of the colon, and that they increase in frequency with age. Histologic examination of these adenomatous polyps generally reveal foci of change comparable to the histologic aspects of adenocarcinoma of the colon. Since in their clinical behavior, adenomas resemble noninfiltrative carcinomas situated elsewhere, the generally accepted method of treatment is that of conservatism—transcolonic removal or

proctoscopic fulguration, except in those instances in which the multiplicity of the polyps precludes such treatment. Since infiltration of the wall of the bowel is the dividing line between benignancy and clinical malignancy, it is very important to determine whether or not infiltration of the wall of the bowel has occurred. As a general rule, it is easy for the surgeon or proctologist to determine this by testing the mobility of the stalk of the adenoma. However, whenever possible, the pathologist should examine the stalk to determine whether or not infiltration is present. When infiltration of the musculature has occurred, the lesion should be regarded and treated as an ordinary carcinoma of the bowel.

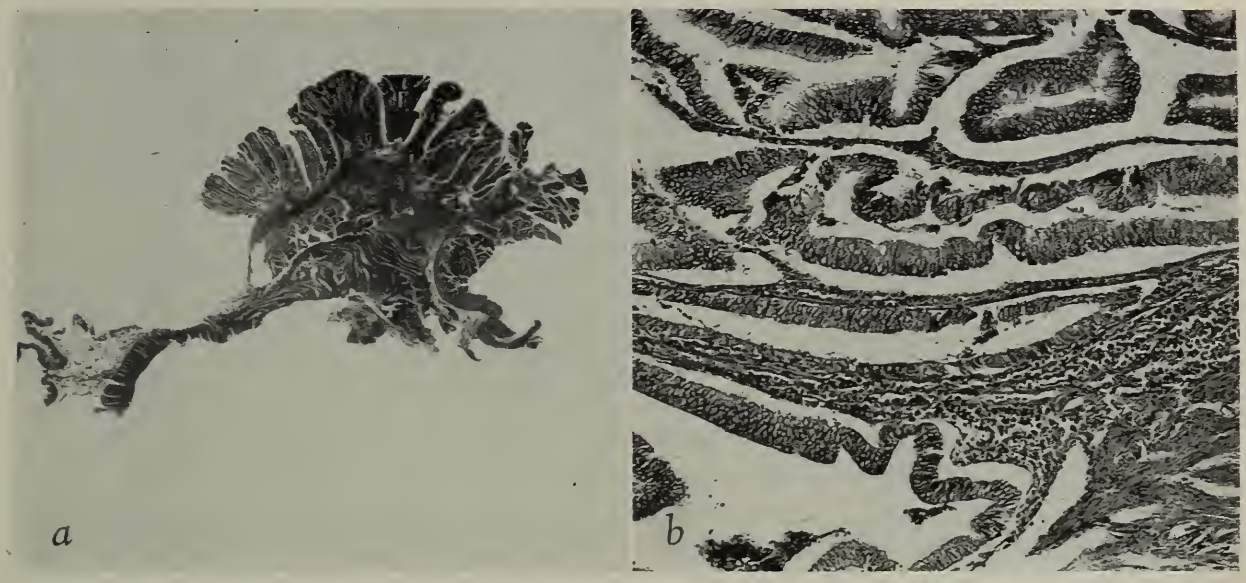


Fig. 7. Polypoid carcinoma of the colon. (a) Gross appearance, showing infiltration of the muscular wall (hematoxylin and eosin; ×1½); (b) histologic section, showing infiltration of muscular wall (hematoxylin and eosin; ×115).

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MSMS

A two to five per cent increase in the cure rate of gastric cancer would save more lives than the cure of all patients with lip cancer.

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At present only five per cent of all patients with cancer of the nasopharynx survive and are symptom free five years after therapy. If the lesion is treated while still localized, twenty-five per cent will survive.

Progress In Cancer Research

By John R. Heller, Jr., M.D.
Bethesda, Maryland

IN BEGINNING, let me emphasize a point about this discussion of cancer. It is an open discussion and I am pleased that it is open. Such a discussion is highly important and, in fact, is a prerequisite to progress against cancer itself. More than that, I think our discussion is a welcome sign of a drastic change in public attitudes.

Only thirteen years ago *Fortune* magazine published an article on cancer and titled it "Cancer: The Great Darkness." The most recent comparable publication, a series of articles in the *New York Herald Tribune,* republished this year by the Public Health Service, was titled "The Challenge of Cancer."

The contrast in these titles is noteworthy. Between the "great darkness" as the 1937 way of looking at cancer and the "challenge" as the 1950 way, there was a drastic and wholesome change in public attitudes. I doubt that anyone writing of cancer today would refer to it as a great darkness. This in itself is a significant indication of the progress we have made.

This change in attitude underlies the more tangible evidences of cancer progress that we can list today. For as long as the open discussion of cancer was shunned, it provoked only fear and apathy, and it could not be approached as a practical, scientific problem, or even as a practical medical problem. As long as the general attitude was one of hopelessness, one could neither expect the individual to seek medical attention for cancer nor the physician to diagnose and treat it on a rational basis. Although this avoidance reaction to cancer is still not entirely overcome, we can now make a progress report on cancer in the most favorable public and scientific climate that we have ever known.

Any summary of a single year's progress in cancer is apt to be disappointing. In this area, progress has come in little jumps, so that from one year to another it often seems barely perceptible. But taken over a span of years—for example the last two or three decades—the advances in cancer research are impressive and gratifying.

Similarly, instead of pinpointing attention on developments in a single area, there are times when our focus needs expanding to the cancer field as a whole. Cancer progress—like cancer itself—has many aspects, and none may be neglected if we are to move forward along the entire front. In the long run, progress in cancer is measured by our advance in basic knowledge and in our understanding of physiological and biochemical processes.

There is still another way to look at it. Pasteur, in defining "science," wrote that it is "built up of successive solutions given to questions of ever-increasing subtlety, approaching near and nearer toward the very essence of phenomena." This statement seems especially applicable to cancer research. Nearly every method whereby other diseases were controlled has been tried—serologic techniques, the search for a microorganism, a decisive dietary factor, a curative drug. Some of these approaches still hold promise; but refinements inconceivable to the early workers seem necessary. We must continue to answer "questions of ever-increasing subtlety."

But we must remember that cancer is also a personal problem and a public health problem. The national cancer toll this year may exceed 200,000 lives. During the past half-century the cancer death rate has more than doubled—from sixty-four deaths for each 100,000 general population in 1900 to 135 in 1948. Despite continued progress in cancer research and medical care, there is every reason to believe that the problem will grow more acute in future years.

One of the challenging things about this is that we have enough medical knowledge and skill today to save almost half of those people if we could find and treat their cancer in time. To save the other half we must increase our basic knowledge.

In the past fifty years, cancer as a cause of death moved from eighth place to second place, surpassed only by heart disease. There are several reasons for this advance. Among these are better diagnosis and more accurate reporting of causes of death. Another and more important reason is that the major communicable diseases of a generation ago have largely been brought under control. In 1940, cancer mortality alone was greater than the combined deaths from tuberculosis, pneumonia and intestinal infections. With the decline of the

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Presented at the Second Michigan Cancer Conference, Grand Rapids, Mich., October 18, 1950.

Dr. Heller is Director, National Cancer Institute.

communicable diseases, most Americans now survive until the middle and late years of life. It is in these years that cancer is most likely to occur.

In 1900 only 18 per cent of the American people were forty-five years of age and over. Today the proportion is more than one in four. In another twenty-five years, the proportion will be more than one out of three. Plainly, the increasing longevity of the population will expose more and more of us to the hazards of cancer.

Nevertheless, as we approach the cancer problem today I feel we can be optimistic concerning its eventual solution.

There is an ever-increasing extension of research activities on cancer, made possible by broad, intelligent public interest and professional support. Funds available for investigations on cancer have mounted tremendously since the close of World War II. Experimental data from many scientific disciplines crowd the literature. There are now four journals in the English language that are devoted exclusively to cancer. The Fifth International Cancer Congress, held three months ago in Paris, summarized many new research activities.

Broad advances are being made in the physical and biological sciences. Tools such as the cyclotron, the mass spectograph, the ultra-centrifuge and the electron microscope make possible deeper exploration of the cell. The secret of cancer lies within the cell, and other tools which may lead us closer to that secret are the developing techniques of microchemistry and cytochemistry, isotope tracers and tissue culture.

But, to be specific, what are these advances? What are the accomplishments in the vital area we call cancer research?

With the understanding that we will come a little later to the subjects of diagnosis, and prevention, I should like to give you a brief review of some of the main lines of current cancer research, with special emphasis on findings that have been most productive. Some have directly increased our understanding of cancer, and some have provided new materials and methods to make possible investigations at a more advanced level.

Before the turn of the present century, cancer research workers were handicapped by a lack of available material for animal experimentation. This important need has since been met. Geneticists have been able to produce strains of animals sufficiently alike to permit a tumor from one animal to be transplanted and continued in another animal, so that it can be studied indefinitely. Moreover, some strains of animals have been specially inbred so that they develop spontaneous tumors of specific sites with predictable incidence in generation after generation. Other strains have been inbred so as to be virtually free of certain types of spontaneous cancer.

The importance of these animals would be difficult to overestimate, for they figure in perhaps 90 per cent of cancer laboratory research.

What we know about cancer is by no means limited to findings based on animal material and clinical studies. Much has been learned from cancer epidemiology, the study of cancer in human experience.

The immediate objective of cancer epidemiology is to describe group characteristics associated with cancer, and, of equal importance, group characteristics associated with its absence.

The ultimate aim is to explain the natural history of cancer, and thus provide a rational basis for its prevention and control.

Since 1930 another important requirement for the laboratory study of cancer has been met—that is, a ready means of inducing it in animals. Twenty years ago a group of scientists in England isolated a pure chemical carcinogen from coal-tar. This discovery was followed by an intensive search for other chemical inciters of cancer. More than 300 chemical carcinogens have been identified. They range from very complex molecules to very simple molecules—and the only thing they have in common is their ability to cause cancer.

However, with the ability to produce cancer in the laboratory, all three sources of tumor material are fully available—spontaneous tumors, transmissible tumors, and tumors induced artificially with chemical agents. This standardized, dependable material has helped to put cancer research on a sound basis.

In the early studies of the geneticists, a primary purpose was to determine the role of heredity in the origin of cancer. Many believed that crossbreeding of animals would reveal a simple hereditary pattern. Actually, as we now know, the genetic factors of most types of cancer are multiple. Since man is not inbred, or reared under laboratory conditions, we cannot breed out cancer, nor can we predict—even if both parents have cancer of the same organ—whether the offspring will develop the disease.

However, some important by-products have come out of the genetic studies. One was the demonstration that mice of a strain with frequent breast cancer develop few tumors if nursed by mice of a low-tumor strain. This indicates that a factor of breast tumor development in mice is transmitted by the milk. In many respects the milk factor behaves like a virus, and progress has been made in attempts to define its nature. Recent experiments by Andervont of the National Cancer Institute indicate that the so-called milk factor can be transmitted to some extent by the male as well as the female.

Other virus cancers in animals have been extensively investigated. But as yet, there is no evidence of a virus tumor agent in human beings.

Among other influences in the development of cancer, we may cite hormonal imbalances within the body. The relation between cancer and hormones is well established by facts such as these: (1) hormones influence normal growth; (2) cancer of the prostate may be inhibited by reduction of male hormones (by castration) or by addition of female hormones; (3) reduction of male or addition of female hormones may promote cancer of the breast; (4) reduction of female or addition of male hormones may inhibit cancer of the breast; and (5) there is a similarity in chemical constitution between certain hormones and cancer-causing agents.

We have experimental evidence that, in general, the incidence of tumors in mice can be lowered by placing the animals on restricted diets. Investigations at the National Cancer Institute suggest the possibility that anti-vitamin compounds might retard the growth of cancer in tissues controlled by hormones. As leads in cancer research, these and similar dietary findings are highly encouraging.

Cancers have certain properties and characteristics in common which are not common to normal body tissues. In early days, the only differences that could be observed between cancer and normal tissue were structural—they looked different. But with the advance of biochemistry in recent years, it has been proved that cancer and normal tissue have important chemical differences. One of these is a difference in the manner of breaking down carbohydrates to release energy. Another difference is found in the distribution of enzymes—the chemical substances that control digestion, conversion of foods to energy, and other life processes. Differences in the tissue enzymes may make the difference between normal growth and cancer. Biochemists are emphasizing enzyme studies, in an effort to distinguish differences that would lead to improved methods of diagnosis or treatment.

In studies of biochemistry, it is desirable to relate a specific tissue function with the responsible component of the cell. Accordingly, refined techniques are increasingly applied to the study of cell fractions isolated by the high-speed centrifuge. These studies of the enzyme activity of cellular particles are made in conjunction with electron microscope studies of structure within the cell. By means of these techniques, it has been shown that certain enzymes are carried by specific particles in the cell, and electron microscope studies have shown that the structure of those particles is altered in tumors.

The development of these biochemical techniques has established a firm groundwork for investigations on an increasingly subtle level. Meanwhile, it is well to remember that in many diseases the cause and mechanism were unknown when effective means were discovered for prevention and control. What I am saying is, a full knowledge of the cancer process is not essential to productive research in cancer treatment.

A number of advances in experimental therapy can be cited. Some of the radioisotopes— particularly radioiodine in the treatment of some thyroid tumors and radiophosphorus for chronic leukemia —have been tested. At the present time, their usefulness is limited. Radiocobalt still shows some promise as a cheap and abundant substitute for radium, but a great deal of clinical investigation is necessary before it can be evaluated.

A number of drugs—the nitrogen mustards, urethane, stilbamidine, pentamidine—have been shown to have a palliative effect in certain types of cancer.

The nitrogen mustards seem to deserve a place in the treatment of Hodgkin's disease, polycythemia, lymphosarcoma, and perhaps some cases of chronic leukemia. These agents are highly toxic and produce only temporary remissions.

Urethane has been found effective in chronic myelogenous leukemia and, to a lesser degree, in similar conditions. In early cases, remissions lasting a few months may be obtained, but when the drug is discontinued, sudden relapse occurs. In advanced cases, this agent is inferior to radiation.

Stilbamidine and pentamidine have been shown to have some effect in multiple myeloma. In con-

junction with a low protein diet, these agents relieve pain and temporarily retard the disease.

Folic acid antagonists—such as aminopterin—have produced temporary remissions in leukemic animals and in a few children with acute leukemia. But these agents are highly toxic and are not recommended as yet for use by the practitioner.

Estrogen is of value in the treatment of cancer of the prostate, and androgen or estrogen in breast cancer. I would like to emphasize that hormonal treatment in cancer is only palliative.

Another promising approach to the development of chemical agents for cancer therapy is the systematic screening of compounds known to damage cells. In an extensive, five-year program under the direction of Shear at the National Cancer Institute about 2,500 chemicals have been tested. More than 100 were found to be damaging to cancers (Sarcoma 37) in experimental animals. With the screening program brought to a close, we are intensifying studies of the 100 or more compounds that we have found damaging to cancer. Two such promising compounds are alpha- and beta-peltatin, both derivatives of podophyllin.

To sum up, a number of chemicals have shown definite objective effects on certain types of cancer in man. However, the effects thus far are of a temporary alleviative nature—and the cure of cancer still remains firmly with surgery and radiation therapy.

These advances are encouraging and useful, we all agree. But they do not give us the solution to one big, immediate problem—the problem of diagnosis. We are at work on that. There is an urgent need for a diagnostic test which can be applied in any community on a mass basis at reasonable cost and sufficiently specific to identify a high percentage of cancer cases at an early stage. For more than a year, a program has been under way to re-evaluate all reported tests for cancer, and, if possible, to devise new ones.

I think that the cold facts about diagnostic tests will soon begin to emerge. Whatever the facts show, whether any specific test is useful, the people have a basic right to know.

Cancer morbidity surveys of ten American cities, (Atlanta, New Orleans, Birmingham, Dallas, Detroit, San Francisco, Denver, Chicago, Pittsburgh, and Philadelphia), have just been completed. Although I cannot discuss their results at this time, I can tell you that these surveys re-emphasize the importance of the varied programs directed toward achieving early case-finding and early diagnosis.

To an undetermined extent, cancer can be prevented. In industry, agriculture, and professions we find various carcinogenic agents—of a physical, chemical or parasitic nature—which result in cancers at a wide variety of sites. The first essential in controlling environmental cancer is to determine the extent of the problem, in terms of specific industries and areas.

Through experimental cancer surveys, co-operating state agencies are analyzing cancer deaths and relating them to type and length of employment. This information is being correlated with surveys of local industries. As an example of the kind of information we are getting, I might tell you about a chromate plant in New Jersey. Of 150 workers with an exposure of at least six months and an interval of four or more years since the first exposure, twenty-five are now dead. Five of them died of lung cancer, one of leukemia, and one of intestinal cancer. This is a small group, but the incidence rate is so many times higher than for the general population that it is fairly certain a real carcinogenic hazard has been identified. Similar investigations are taking place in the steel industry, the oil industry, tar and pitch, and others. I think we are making rapid progress in this area.

In this review of progress in cancer research I have tried to present the problem not as a dark mystery but as a problem requiring—and getting—practical approaches. As we have seen, there is substantial progress to report. Investigation is being pursued on a scale unknown just a few years ago. New or improved techniques of diagnosis and therapy have instilled a measure of hope and confidence in both the physician and the patient that cancer is not necessarily a death sentence. There is every reason to believe that cancer is a practical, solvable problem. By vigorous extension of our efforts, I am convinced we can go far in the control of cancer. By continuing to support these efforts as long as necessary we can reduce the cancer problem to a more tolerable level.

MSMS

Carcinoma of the vulva is often misdiagnosed and inadequately treated. The lesion is radioresistant and complete vulvectomy, with dissection of the superficial and deep inguinal and femoral lymph nodes, is the accepted treatment.

Radiation is not only useless but can be harmful in carcinoma of the liver.

What is a Practical Cancer Detection Program?

By Frank L. Rector, M.D.
Jackson, Michigan

IN THE ABSENCE of a demonstrable causative agent, such as is found in bacterial and parasitic diseases which permits of ready identification of the guilty agent, the discovery of cancer rests upon more complicated and time-consuming procedures.

With no blood or other specific test of dependable accuracy, the origins and sites of cancer must be painstakingly searched for. The physical examination, plus its adjuncts of biopsy, x-ray, and clinical laboratory procedures, must be employed in this search. These all require time.

As the population becomes an older one, more cancer will develop. As diagnostic facilities and abilities improve, more cancers can be found in earlier and curable stages. Note, please, I said "can be found"; this does not mean they will be found. Unless and until the general public, as well as the medical profession, more fully appreciate the value of periodic medical examinations and the necessity for closer co-operation in diagnostic and treatment procedures, unnecessary handicaps will continue to hinder the progress of cancer control.

Utopians dream of the time when everyone will have an annual or even a semi-annual examination for cancer; when an advanced cancer will be a curiosity as rare as a case of typhoid fever or cholera, and when the cancer death rate will be of minor importance. There are also those who tend to the opposite pole of thought; that cancer will increase in frequency and the death rate will mount steadily. The practical outlook rests, probably, some place between these extremes.

The number of cancer detection or other medical examinations possible at this time or in the immediate future is restricted to the number that can be squeezed into the physician's working day. Let us indulge in a few mathematical calculations of a theoretical nature to appreciate the enormity of the problem of mass physical examination programs and to suggest a practical solution. It would require thirty-six weeks for 100,000 physicians making three cancer detection examinations daily, five days weekly, to examine once that portion of the population thirty-five years of age and older. The amount of time required would depend on the extent and thoroughness of the examination. Complete examinations would utilize practically all of the examining physician's time, leaving no time for his regular practice. By confining the examination to those sites where 60 per cent of all cancer is found, a far greater number of cancers would be discovered in the time available for this work. True, some cancers would be missed by this type of examination but, for the time and labor expended, more cancers can be found and more lives saved by this selective examination than in any other type of detection program yet offered.

It is realized that this selective examination is not the ideal plan, but what is the alternative? It is not in more thoroughly examining fewer persons. Is not the most practical solution an increase in the number of physicians? Although this country has had for many years the highest ratio of physicians to the population of any country in the world, voluntary health and hospital insurance services, plus new diagnostic and treatment methods and facilities, have made ever-increasing demands on the physician's time. Medical leaders recognize the need for more physicians, which need can be met only by an expanded medical training program. Slow progress is being made because of lack of facilities and teachers. The life-saving value of the cancer detection examination program may well be one incentive to provide the increased number of physicians needed.

By restricting examination to older age groups, more cancers could be found in the same length of time but would the socio-economic returns be as great? In general, the cure of a cancer at age forty offers more of benefit to society than does such a cure at age sixty or above. The problem then becomes one of selection of type and extent of examination to provide the greatest service to the community, in keeping with the time physicians have available for this work.

Under stimulation of the American Cancer Society, cancer detection centers have been organized in many states. While a wide variety of conditions governs the operation of these centers, they are designed to offer medical examination of apparently well persons to detect the presence of an early

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Dr. Rector is Secretary, Cancer Control Committee, Michigan State Medical Society, Jackson, Michigan.

Read at the Seventh Annual Meeting, Public Health Cancer Association of America, St. Louis, Mo., October 30, 1950.

and unknown cancer. They are housed in a hospital or in specially equipped quarters convenient to the population they are designed to serve. They are serviced by lay workers and are staffed by local physicians. They are in operation for restricted periods, varying from daily to monthly meetings of a few hours each. Examinations are restricted to previous appointment. Extent of the examination varies from a complete examination requiring two or more visits to the center, to a rather cursory examination without laboratory aids. In the latter cases, any suspicion of malignancy usually concludes the examination with reference of the examinee to his family physician for completion of the diagnosis and such treatment as may be indicated.

The type of cancer detection program just described has made a lasting contribution to the discovery of early cancer. It has shown both laity and physicians the value of a careful medical examination as an early case-finding procedure. As educational and demonstration programs they should be continued, probably in connection with medical teaching institutions. As community service programs to significantly lower cancer morbidity and mortality, they have a limited value as none of them, as far as my knowledge goes, is serving as much as one per cent of the tributary population. A nationwide survey of these detection centers by the American Cancer Society, revealed that cancer was found in .8 per cent of 51,728 examinations.

The last few years have seen a variety of plans devoted to the finding of cancer in early stages. Macfarlane in Philadelphia, and L'Esperance in New York were among the earliest to undertake such studies. Each of these workers began her studies as a search for cancer in restricted sites rather than as a complete medical examination. Macfarlane examined the female pelvis only; later, her program was enlarged to include the breast. L'Esperance began by examining women only; now both sexes and all ages are accepted at her clinics in Memorial Hospital, New York.

Even more highly specialized types of detection examination are being carried on, largely as research programs. Among the earliest of these was the gastric cancer study by St. John and associates in New York and restricted to persons over fifty years of age in which three gastric malignancies were found in 2,413 examinations. State, at the University of Minnesota, has reported eleven cancers in 1,544 gastric examinations, also in patients over fifty. At the Cancer Detection Conference in Portsmouth, N. H., last year, it was reported that 100,000 chest roentgen examinations uncovered but sixteen cancers; that in 6,000 cervical examinations, nine cancers were found. King, of Delaware, reported that twenty-two cancers (1.1 per cent) were found in 2,000 examinations of the breast. pelvis and rectum of women over forty.

The results of these and other similar studies emphasize two important things: (1) that cancer can be found by careful examination before it has made itself known to the patient, and (2) that the finding of early cancer is in any case a prolonged time-and-labor-consuming experience to say nothing of the costs involved. As life saving is, or should be, the fundamental objective of all such undertakings, the problem then resolves itself into finding some way of increasing the number of cancers found by a given expenditure of time and labor. Cancer detection programs should be keyed to finding the largest possible number of cancers during the time available for this work. Surveys have shown that more than half of all cancer occurs in sites readily available for examination without elaborate or expensive equipment. The oral cavity, skin, breast, female pelvis, rectum and prostate are easily examined and will yield a much higher percentage of cancer for the time and labor involved than will the examination of any other equal combination of sites.

It has been argued that by restricting examination to certain sites other and equally dangerous areas are excluded. The stomach, lungs, and other internal organs, while important, require much more time for examination than do the sites listed above. The same amount of time spent on accessible sites will yield a much greater number of cancers, thereby increasing the number of lives that can be saved.

Another argument for confining the primary examination to accessible sites is that cancer found in these organs lends itself to cure in a much higher percentage of cases than does cancer in many internal organs. There is no satisfactory method known today for finding cancer of many internal organs in early and curable stages.

A carefully taken and evaluated history of the patient is a necessity in any cancer detection examination. Where such a history is lacking or is taken by some one other than the examining physician and who may not even be a physician, a

splendid opportunity is lost for evaluating the patient's general health background, to say nothing of definite cancer leads that may be uncovered.

To further extend the benefits of special examinations, two or more community health programs can be combined as case-finding procedures. For example, a rare opportunity exists through the tuberculosis chest x-ray survey program to obtain information on lung cancer which in some areas has been found more often than has tuberculosis. Every effort should be made to co-ordinate the cancer and tuberculosis case-finding programs so that one examination will serve both purposes. By sharing expenses the cost per examination for either disease also would be substantially reduced.

An example of the selective type of cancer detection examination that is attracting national attention is the Hillsdale Plan for Tumor Detection, so-called from the medical society in Hillsdale County, Michigan, initially sponsoring the program. Hillsdale is a rural county of 30,000 population of better than average economic status. Under this plan, any one desiring a cancer detection examination makes an appointment with his own physician for the examination during the physician's regular office hours. Primarily, the examination covers the oral cavity, skin, breast, female pelvis, rectum and prostate, and requires approximately one-half hour to complete. However, if the history or the initial examination uncovers suspicious conditions in other organs, they are included. Biopsy and x-ray examinations are made when indicated. Cancer of the stomach, cecum, colon, and metastatic growths in the lungs, bones, and glands have been found in addition to those in the sites always included in the examination. Realizing that one negative examination has no lasting value, semi-annual re-examinations are encouraged and in many cases are made.

In the first two years of operation of this plan, cancer was found in 3.75 per cent of the 1,721 persons examined. This is a much higher return than the .8 per cent reported in the American Cancer Society's national survey of detection centers.

Examinees under the Hillsdale Plan are not restricted in any way. All ages and both sexes are accepted. Only those cases are reported that are being diagnosed for the first time. In other words, the patient—while he may have known something was wrong—did not know previous to his examination that he had cancer. The cancers found in this group of examinees, when classified by stage of development, showed 63 per cent to be in a stage lending hope for cure. In another group of cancers found in patients ill at home or in the hospital when examined, but 37.5 per cent were classed as hopeful for cure.

To date, two important results have come from the Hillsdale Plan: (1) more than 17 per cent of the women of that county over the age of forty have had one or more examinations, (2) the participating physicians have developed a keener interest in the cancer control program and a greater proficiency in cancer detection. Both the public and the profession are profiting from this undertaking. This plan will work in any community if and when the public and the medical profession seriously and co-operatively strive to that end.

As reports on all cancer examinations in Hillsdale County are filed with the local health department, a body of local cancer morbidity statistics is gradually accumulating. This is a worth-while part of this program but the desire for statistics is subordinated to the desire to render the fullest possible service to the community. Statistics, as such, do not save lives, while the finding of early cancer does.

The cancer-detection program in Hillsdale County has always been considered a part of the regular medical service rendered by the physicians to the community. The question of a special uniform fee for these examinations has never been considered, the patient paying for the service rendered just as he does for any other type of medical service.

As with all similar physical examination programs, a large number of disabilities other than cancer is found under the Hillsdale Plan. These have not been included in reports of the Plan's operation but they receive appropriate medical attention in which the county health department cooperates when the situation warrants. As a consequence, it is believed that the working of the Hillsdale Plan for Tumor Detection represents an example of the practice of preventive medicine at its best.

In conclusion, the following facts seem to deserve emphasis:

1. Cancer detection examinations of the entire adult population are not possible for lack of physicians and lack of public interest.

(Continued on Page 428)

Virus as a Cause of Human Cancer

By John E. Gregory, M.D.
Pasadena, California

IN 1882 Koch surprised the entire medical world when he proved that tuberculosis was caused by a germ. The medical men of that time were both surprised and extremely skeptical because it had apparently been proved that everything bad, such as bad air, bad nutrition, et cetera, was the cause of tuberculosis.

It is to be hoped that our readers will not be equally skeptical of certain facts to be presented here on the subject of cancer.

As an introduction to this subject, everyone is reminded that the one malignancy best understood in animals is chicken sarcoma, which is caused by a virus. This was established by the outstanding work of Rous.

In 1933, cancer of rabbit skin was proved to be due to a virus by Shope.[14,15]

In 1934, cancer of the kidney in the frog was proved to be due to a virus by Lucke.[12]

Let us also review the subject of cancer in the mouse. For decades, breeding experiments with mice practically proved beyond question of doubt that breast cancer in these animals was due to an hereditary factor. In 1940, this was proved to be a factor which was transmitted through the milk. This milk factor appeared to be a virus, for only extremely small amounts (0.2 c.c.) was necessary to transmit the disease. It passed through the Berkfeldt filter and could be destroyed by pasteurization.[1,2,3] Consequently, the fact that a virus caused breast cancer in the mouse was accepted by most researchers.

In an experiment, mice with the milk factor present were castrated at from one to three days of age, and all developed cancer of the adrenals. The same experiment was repeated on cancer-resistant animals. They only developed a hyperplasia of the gland.[18,19,20]

Another experiment was made by transplanting the ovaries into the spleen of mice with the milk factor present. Cancers of the ovaries consequently developed. The same experiment done on cancer-resistant mice produced no cancer.

Methyl-cholanthrene was put on the skin of mice with the milk factor present, and cancer of the skin developed. The same experiment done on cancer-resistant animals did not produce cancer.

Plutonium given by mouth to mice with the milk factor present produced sarcomas of the intestinal tract, and when given intravenously, produced sarcoma of the bone.[4] When this experiment was repeated on cancer-resistant animals no malignancy developed.

Now it appears evident that this milk factor (or cancer virus) not only produces cancer of the breast but also malignancy of any tissues, depending on the hormonal physiology which is upset or on the location of irritants.

Vernon Riley, at the National Cancer Institute in Bethesda, Maryland, has concentrated the virus of breast cancer in mice.[13] Then after greatly diluting it and injecting it into mice he was able to produce malignancies even when only 40 virus were injected. In a malignant melanoma he was also able to show that these granules are enzymatically active. This may be the enzyme link in cancer research.

Cancer in the mouse is identical microscopically, grossly and clinically to cancer in the human. Is it not logical to believe that the pathogenesis is likewise identical?

Now in our work, human malignant tissue was taken directly from surgery, and with absolutely sterile technique, ground up completely, diluted with triple-distilled water and made into a Berkfeldt filtrate. This was examined under the electron microscope, and virus-like bodies were found in 100 per cent of the malignant tissue. These objects were not only spherical in shape and the size of virus, but also had cell detail including cell wall, nucleus and cytoplasms. They could be seen in the process of cell division with the cell wall surrounding two nuclei. This virus was cultured, not only in eggs, but also on agar.

If a normal saline solution is used in making the tissue extract, practically no virus will come through the Berkfeldt filters, for the salt salts the virus out in the candle.

The virus may appear larger when prepared in this way and dried on a slide than it does when examined in the tissue. In addition the virus detail shows up better.

Figure 1 shows electron microphotographs of cancer virus.

Over 1,000 human malignant tissues have been examined and this same virus was found in all of them. One thousand normal tissues and benign

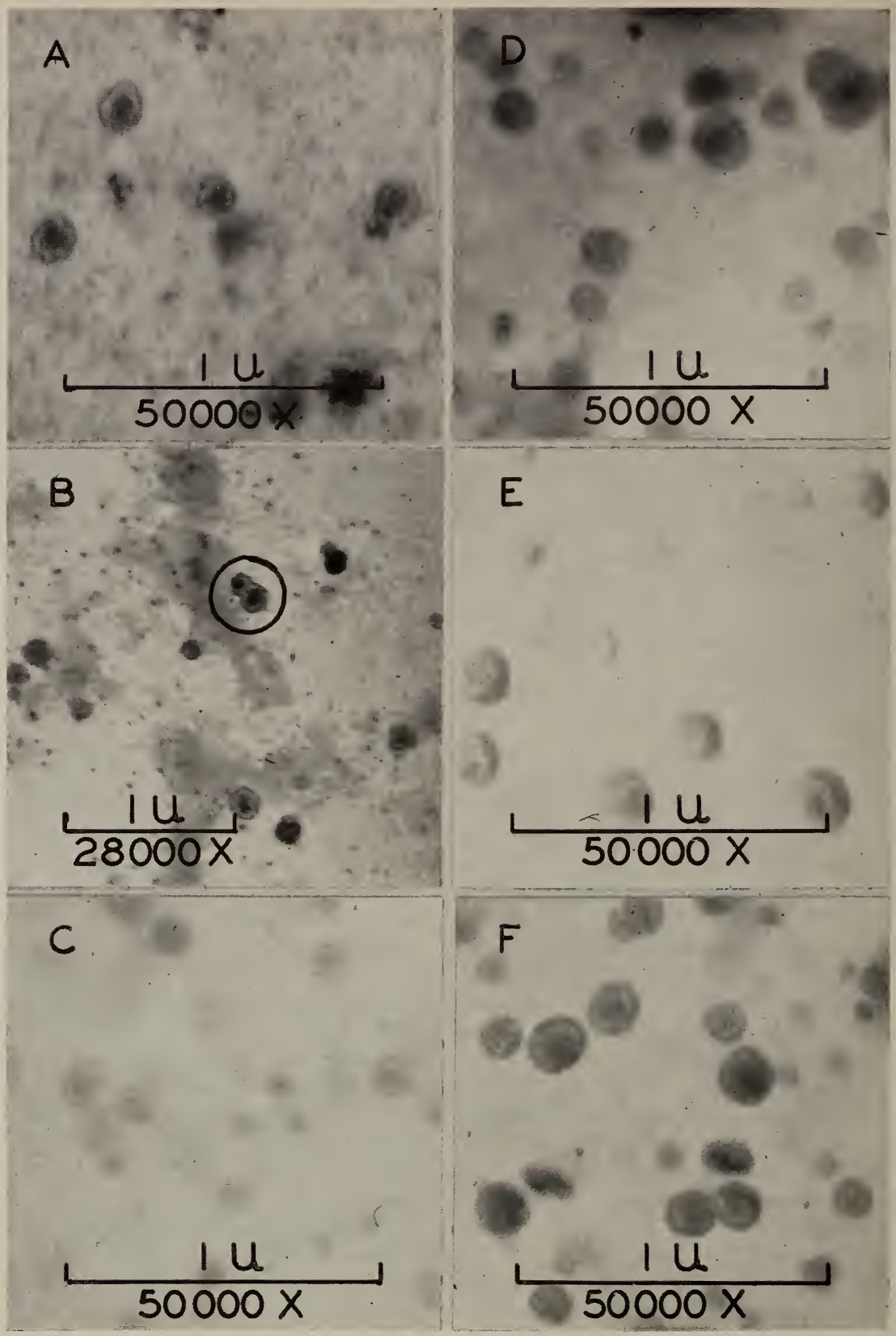


Fig. 1. (A) An electron microphotograph of virus from human cervical carcinoma. (B) An electron microphotograph of virus from human malignant melanoma. (C) An electron microphotograph of virus from egg culture of human malignant melanoma. (D) An electron microphotograph of virus from mouse breast carcinoma. (E) an electron microphotograph of virus from stock culture of chicken sarcoma. (F) An electron microphotograph of virus from human breast carcinoma.

tumors were also examined but no virus was found. This proves that these bodies are not artifacts. J. D. Fox,[5] working under a Federal grant, has verified this work. Claude and Fullman, and Gesler[6] and Grey have also found this virus in cancer tissues. Further, the fact that these virus-like bodies found have also been cultured is absolute proof that we are dealing with living virus.

A question now arose. Is this virus a product of cancer or the cause of the disease? Consequently, cultures of this malignant melanoma virus were injected into mice and baby chickens. In 25 per cent of the injected animals, there developed cancers which included cancer of the ovary, breast and stomach, spindle cell sarcoma, myosarcoma and leukemia. A control group, ten times larger, developed no malignancies. Further, the virus isolated from the developed malignancies was the same as that injected. This carries out all the criteria of Koch's postulate.

An additional experiment was performed to rule out the possibility that the tumors were caused by the transmission of a chemical agent. This virus was heated to 56° Centigrade for one hour and then injected into twice as many animals as before, but no malignancy developed. This proves that it is life in the virus which produced the malignancies.[8,9,10]

If the above statement is true, there should be serological evidence of this virus. Human cancer virus was injected intraperitoneally into cancer-resistant mice. After two weeks the mice were killed. The livers were removed and a complement fixation test was run with the virus against the liver filtrate. The test gave positive results and proves that specific antibodies for the virus were developed in the liver. This is a typical reaction of virus.

On this basis a complement fixation test for cancer was developed, using cancer tissue filtrate as antigen against human serum. This test has proved so far to be 88 per cent diagnostic for cancer. (Note: It is most important that absolutely clean cancer tissue be used. Cancer of the intestinal tract and their metastases will not work because of the presence of contamination by other organisms. Non-contaminated cancer of the bladder has been the most satisfactory.) This presents serological evidence that human cancer is due to cancer virus and not to just any virus.

In addition, if cancer is caused by a virus, it should be possible to develop an antibiotic. To

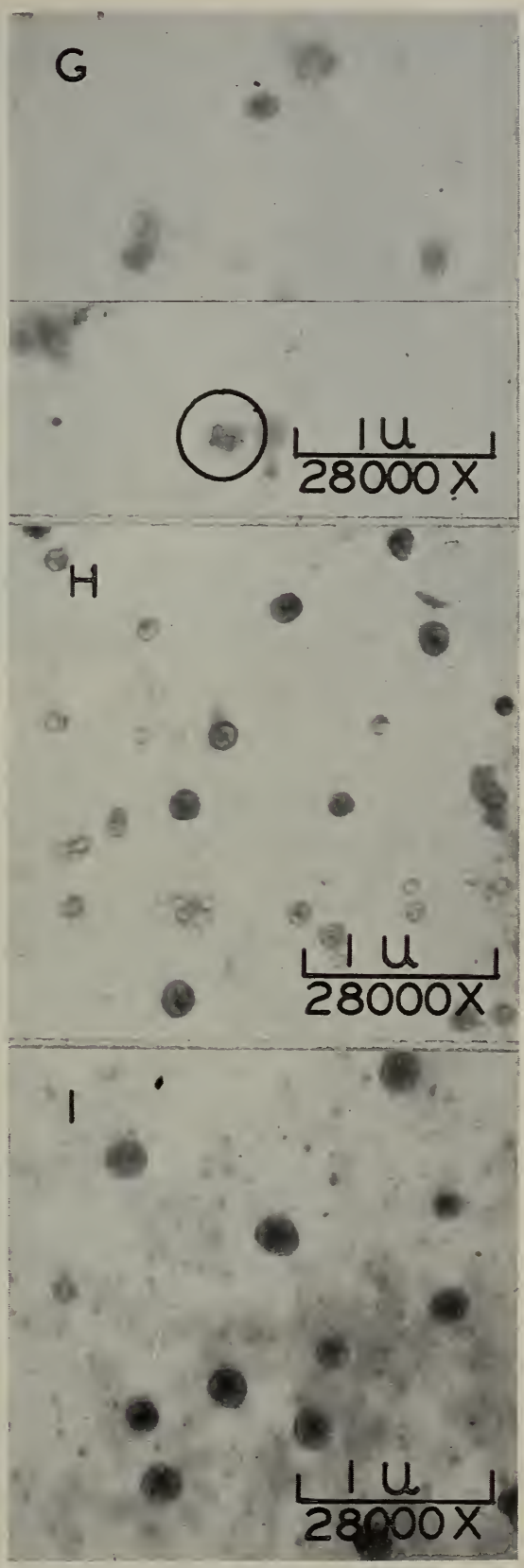


Fig. 2. (G) An electron microphotograph of virus from human carcinoma of uterus. (H) An electron microphotograph of virus from buffy coat of human leukemia cutis. (I) An electron microphotograph of virus from egg culture of ulcer of human leukemia cutis.

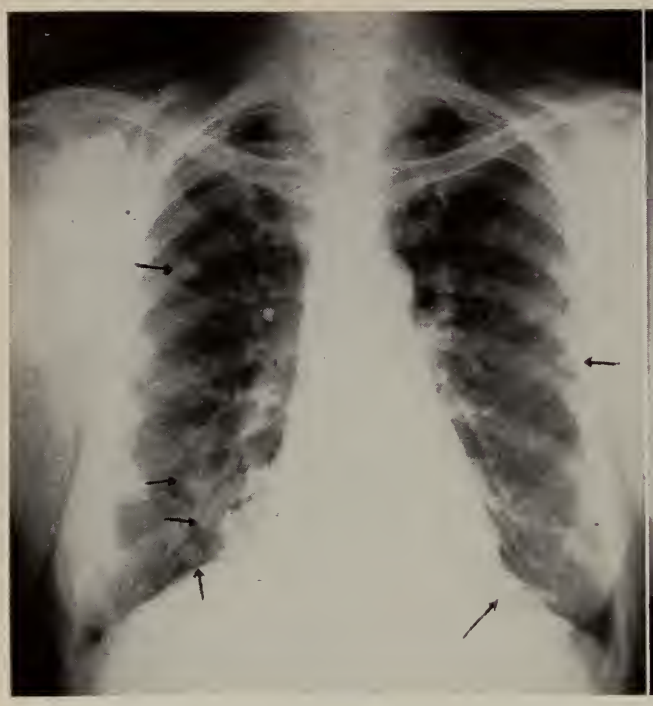


Fig. 3. X-ray of patient showing cancer metastases in lung.



Fig. 4. X-ray of patient four and one-half months later, after treatment with Magnesium Tracinate, showing no metastases.

determine this, various bacteria were placed together with this virus and then examined under the electron microscope. B. Subtilis Tracy I was the only organism found to have any effect. Within ten minutes after placing them together in a test tube, the virus was found to be agglutinated to the bacillus. One hour later, the bacillus could be seen ingesting the virus.

Filtrates of this bacillus were made and injected into the hip of mice with cancer of the breast; and after one month the cancer disappeared.

On this basis, far-advanced cancer patients were treated with a Berkfeldt filtrate of this organism which was given hypodermically daily for one year. Most of these patients showed satisfactory progress as far as the cancer was concerned, but their kidneys failed, albuminuria developed, and treatment had to be stopped. However, three of the patients never developed albuminuria and are in good health two years after the treatment was started.

This material was later purified, and from it was isolated a crystalline substance called Magnesium Tracinate. It has never produced albuminuria. This Tracinate still retains most of its antibiotic effect against cancer virus.[11]

Seven cases have been reported of far-advanced malignancy which were treated only by the use of this substance. These patients had been given only from one to eight weeks to live. At the present time, one to two years after treatment was started, they show no evidence of the disease. These cases were carcinoma of cervix, carcinoma of skin, multiple myeloma, lymphosarcoma, chronic leukemia, malignant melanoma and sarcoma of the uterus. Likewise, both a case of acute leukemia (two years' duration) and a case of Hodgkin's disease were also treated and now show no evidence of the disease.[11]

In Figures 3 and 4 are chest x-rays of a patient with a large cancer of the stomach with metastases to the lung. This patient, a woman, when first seen in March, 1950, had lost 25 pounds in weight and had a large palpable tumor of the stomach. X-rays showed a 2-inch filling defect in the stomach. She vomited most of the time and was slightly jaundiced. The first chest x-ray, taken March 20, 1950 (Fig. 3), shows many distinct metastases. The only treatment since has been 10 mg. of Magnesium Tracinate hypodermically daily. Now, after five months, she appears in good health, has gained all her weight back, has a good appetite and no nausea or vomiting. A chest x-ray, taken August 1, 1950 (Fig. 4), shows no metastases. A complete gastrointestinal series and chest x-rays taken November 1, 1950, by Dr. Delos Comstock

(radiologist) show everything normal with no evidence of cancer. This restoration of normal health is definitely an antibiotic effect. When B. Subtilis Tracy I shows no destructive effect on the virus when viewed under the electron microscope, as a result of improper culture or age, it is clinically worthless also, but when its destructive effect on the virus is marked it is then clinically of value.

The Hodgkin's virus appears to differ slightly from the cancer virus but it seems to respond to the same treatment.

All this is still further proof that cancer is a virus disease.

Taylor and others have transplanted carcinomas, and have developed sarcoma at the point of contact.[16,17] This different cell-growth developed shows that there is something else present within the cells themselves. This suggests the presence of virus.

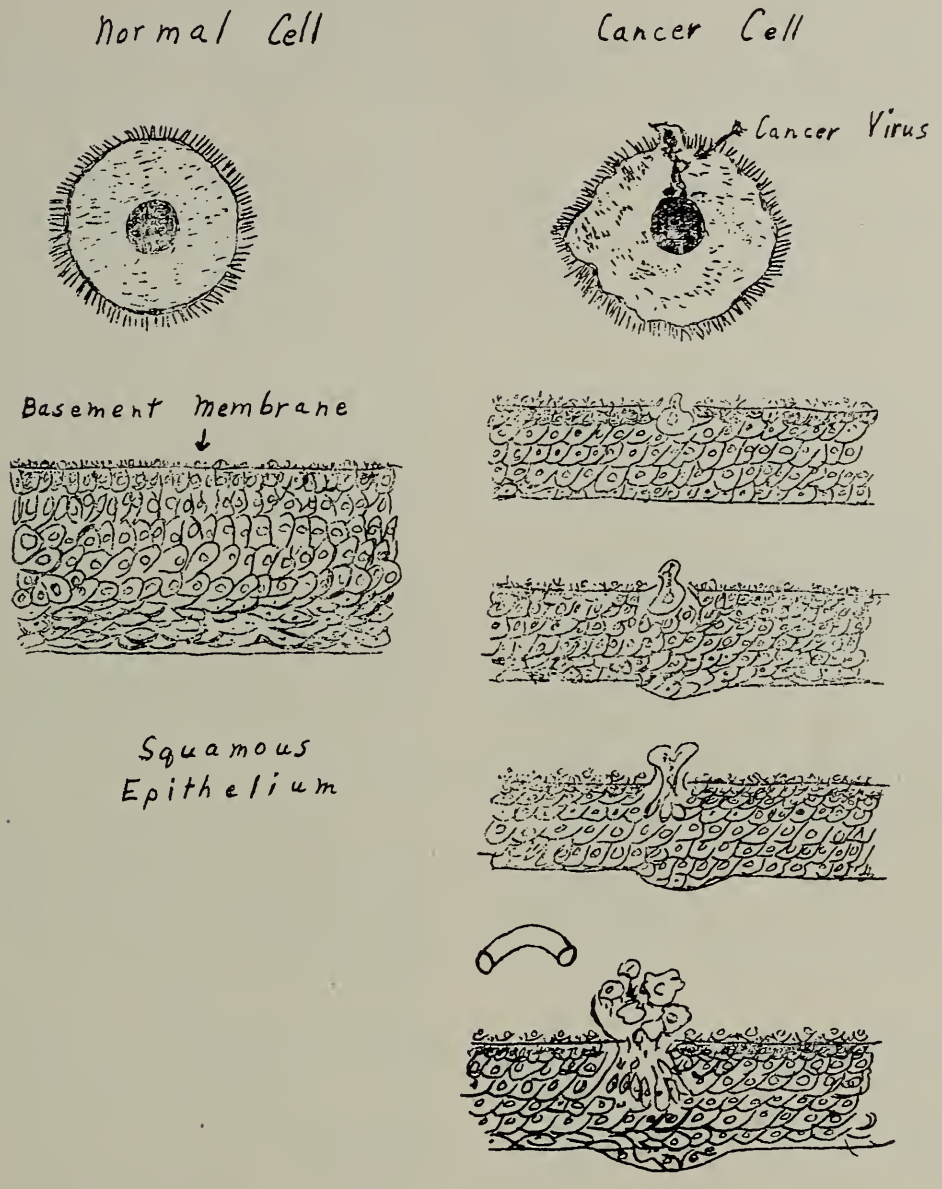


Fig. 5. Growth of normal cells and cancer cells.

Clinically, we should have recognized the presence of infective organisms causing cancer, for the most prominent symptom is toxemia which is the cause of death in 80 per cent of the cases. In fact, the toxins of cancer are having their deadly effect usually even before the tumor is large enough to diagnose easily. On the other hand, cells growing wild, such as extremely large multiple

fibroids, do not produce toxic effects. This is clinical evidence that cancer is due to a virus.

Now that it has been shown that cancer is due to a virus, the nature and role of virus in cancer will be discussed.

Visualize a microscopic section of stratified squamous epithelium (Fig. 5). The cells all grow outward and away from the basement membrane, the reason being that the cells are growing, and thus more room is required. The cells are smooth on the outside except for "prickles" or bridges which allow fluid to pass between the cells and bring nourishment. During growth everything must move or "skid" in one general direction—namely, outward and away from the basement membrane.

Now, this is not so true with cancer cells, for it has been shown that they are irregular in contour. This irregularity is, I believe, produced by cancer virus within the cell, growing out against the cell wall and producing bulges. If this cell is far from the basement membrane, it continues out to the surface like any other normal cell, but if it is next to the basement membrane the bulging area may protrude into the basement membrane between the cells and break it. This ameboid, finger-like projection will then anchor itself onto the subcutaneous tissue and draw the cell inward, when it is stimulated to grow, thereby enlarging the break in the basement membrane. This, as you know, is the first sign of cancer. The cells continue to multiply under the basement membrane, invade the tissues or even the blood vessels, and thus metastasize. The accompanying drawing illustrates this (Fig. 5).

Since the cancer virus has become an integral part of the cancer cell, naturally the division cells will also be the same malignant type. Consequently all metastases will be the same cell type.

There are many factors that vary cell growth. These are irritation, chemicals, excess caloric intake, high protein diet, high unsaturated fat diet, and increased activity of certain endocrine glands.

It has been shown that the hormones not only stimulate the cells to grow but stimulate the virus to grow as well; and further, that virus, when stimulated by hormones, sensitizes the cells to grow ten times more rapidly than normal. For instance, if two groups of animals, one with the cancer virus and one without the cancer virus, are given the same amount of estrogenic hormone, those with the virus present will develop cancers of the breast 90 per cent of the time, while the others, only benign tumors of the breast 10 per cent of the time. In other words, the cancer virus present causes those cells to be ten times more sensitive to cell stimulation and resultant growth than the normal, virus-free cells.

In the case of one patient with Grade IV cancer of the breast, treatment was given for one month with male hormone. A biopsy at that time showed a Grade III carcinoma, and one month later, Grade II carcinoma. In the Grade IV there was a large amount of virus, in the Grade III the virus was markedly diminished, and in the Grade II only a small amount of virus was present.

This shows that the hormone stimulates both the virus and the cell to grow, and shows why the Grade IV cancer is more invasive than the Grade II. In our culture work with the cancer virus the best growth was obtained when pituitary extract was added to the virus culture.

The similarity in the physiological response of this virus as compared to the response of normal cells when stimulated is not only very apparent but very essential. If only the virus grew in the cell, the cell would rupture and die, but when both the virus and the cell are stimulated to grow at the same time, the malignant invasive characteristics develop.

It is an established laboratory fact that cancer cells are more easily grown in culture than their corresponding normal cells are. Might not this be because of the increased potential for life within the cell in the form of virus?

Virus, as I have shown, is not a piece of protein broken off of something, but rather a living cell. Cancer virus has cell wall, nucleus and cytoplasm, and can be seen in cell division with a cell wall surrounding two nuclei—a typical mitosis. It can be cultured in both eggs and agar.

For those who think that virus characteristics are so much different from those of small bacteria, I would like to ask this question. How did it happen that the diminishing size of bacterial life so conveniently stopped at the upper magnifying limit of the light microscope? Naturally one will say that there is no relation between the two, and he is right. Virus are just smaller bacteria. The electron microscope is helping us to visualize how our microscopic world is enlarged. Now we can further extend our study of bacteria, for the virus is not necessarily an entirely new subject of life.

Summary

Some animal cancers are proved to be due to a virus, so we know it is pathologically possible to produce cancer with virus.

The milk factor (or cancer virus) not only produces cancer of the breast in the mouse but also cancer of any tissue in the mouse, depending on the abnormal hormonal physiology or on the location of irritants.

Mouse cancer is identical to human cancer.

Virus has been found in over 1,000 human malignant tissues but not in benign tumors. This virus has been cultured and injected into animals, thereby producing various malignancies. The virus when heated to 56° Centigrade for one hour will not produce malignancy.

This virus has produced specific antibodies when injected into animals. A complement fixation test has been developed to test for the presence of this antibody in human serum. The test is 88 per cent diagnostic for cancer.

An antibiotic has been developed for the cancer virus and can be demonstrated in the electron microscope. This antibiotic has proved to be effective clinically in the treatment of some far-advanced cancers.

Clinically cancer is a toxic disease which cannot be explained merely as cells growing wild.

The role of cancer virus in the development of cancer has been demonstrated.

Since the cancer virus has become an integral part of the cancer cell, naturally all its division cells will be of the same type.

The similarity in the physiological response of this virus as compared to the response of normal cells, when stimulated, is very apparent.

The amount of virus present is in direct proportion to the grade of malignancy, which accounts for its invasive characteristics.

Cancer virus is not dead crystalline or protein material, but a living organism.

Normal cells, when stimulated to grow, cannot, from a physical standpoint, become invasive unless the cancer virus is present. Cancer virus grows inside the cell and exerts force against the cell wall, producing an irregular cell known as a digger cell. If this protrusion is next to the cementum of the basement membrane, a rupture of the basement membrane occurs and a hole is broken through to the subcutaneous tissue. Thus an invasion tumor starts.

Conclusion

Cancer virus growing within the cell is the agent which changes a normal cell into a malignant cell.

Cancer is an infectious disease in which the infective organism is the cancer virus. It sensitizes cells to grow wild and metastasize when stimulated by chemicals, irritants, toxic or excess hormones.

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Parotid Gland Tumors and Their Surgical Management

By Raymond W. McNealy, M.D., and
John W. McCallister, M.D.
Chicago, Illinois

CLARIFICATION OF the exact surgical anatomy and pathology of the parotid gland seems to have lagged behind professional knowledge of other organs accessible to surgical treatment. As a result of incorrect or misleading information, the treatment of tumors of the parotid gland has in many instances been inadequate. Neoplasms of this gland may remain completely curable for a decade or more. Yet, because of misconceptions concerning their malignant nature and proper treatment, many are allowed to pass into gross and incurable malignancy.

Interest in the surgical treatment of tumors of the parotid gland has been given a great stimulus by the pioneer work of Hamilton Bailey.[1] He has made surgeons cognizant of the deficiencies in their knowledge of the anatomic, pathologic and clinical aspects of the parotid gland.

It is our purpose here to dispel some of the common misconceptions concerning parotid tumors, to review some critical points of the surgical anatomy and pathology of the organ and to describe an adequate surgical procedure for removal of tumors of the gland.

Anatomic Considerations

The most important additions to our knowledge of the surgical anatomy of the parotid gland were observed clinically by Hamilton Bailey and demonstrated in the laboratory by McCormack, Cauldwell and Anson.[10] They showed that the gland is consistently bilobular; that the superficial, spreading portion of the gland is connected to the smaller, deep portion by an isthmus. They demonstrated further that the facial nerve lies *between* the superficial and the deep portions of the gland, and that the isthmus is embraced by the temporofacial and cervicofacial divisions of the nerve. This was the source of the expression that refers to the facial nerve as "the meat in a parotid sandwich." Another important point is the presence of frequent anastomoses between the two main divisions of the seventh nerve distal to the isthmus. The clinical importance of these observations will be noted later.

The parotid gland develops during the eighth week of fetal life from the oral ectoblast along the lateral groove separating the upper and lower jaws. Its origin differs from that of the submaxillary and sublingual glands, which develop from a ridgelike structure in the buccal epithelium occupying the furrow in the angle between the base of the tongue and the floor of the mouth.

The fully developed gland lies behind the upper part of the ramus of the mandible, which it overlaps medially and laterally. A forward prolongation over the masseter muscle superior to Stenson's duct is sometimes designated as the accessory parotid. The enveloping parotid sheath is continuous with the fascia of the neck as it passes upward from the sternomastoid muscle to the zygomatic arch. The space occupied by the parotid is bounded in front by the ramus of the mandible. The posterior margin is composed of the external auditory meatus, the tympanic plate, the base of the styloid process, and the front of the atlas. These walls meet above at the petrotympanic fissure. The posterior wall is prolongated laterally by the posterior belly of the digastric, the stylohyoid and the sternomastoid muscles. The lower part of the styloid process, the styloglossus and stylopharyngeus muscles, and the stylomandibular ligament bound the posterior portion of the gland on its medial aspect. There is no wall to the space occupied by the gland anterior to the styloid process, so the parotid rests on the fat and areolar tissue on the wall of the pharynx.

The superficial portion of the gland overlying the masseter muscle has the least limitation to growth, so it may extend upward to the zygoma, anteriorly over the edge of the masseter muscle and inferiorly until it is in contact with the submaxillary gland.

Stenson's duct emerges from the anterior aspect of the gland above its middle and courses over the masseter and through the buccinator muscles to enter the oral cavity. It lies in approximately the middle third of a line between the lower margin of the concha of the ear and the midpoint of the upper lip.

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, September 20, 1950, at Detroit, Michigan.

Observations of Pathology

Tumors of the salivary glands constitute 1 to 2 per cent of all tumors. Tumors of the parotid gland account for about 80 per cent of salivary gland tumors.

Since Virchow described mixed tumors of the parotid in 1863, extensive study of tumors of the salivary gland has been carried out by Ewing, Boyd, McFarland, and others. In spite of the number of neoplasms examined, there is persistent disagreement concerning histogenesis, classification, and cytologic identification of individual tumors.

We prefer the following simple classification of parotid tumors:

1. Cyst.—Simple cyst is rare. It may develop as a result of atresia, obstruction, or congenital defects in the ducts. The unsubstantiated diagnosis of "cyst" is a dangerous one, as malignant tumors may present cystic degeneration.

2. Adenoma.—A tumor occurring but rarely in the parotid, the adenoma is encapsulated, grows slowly, and mimics the parent gland in microscopic appearance. The safe time to make the diagnosis of adenoma is after complete removal of the tumor.

3. Adenocarcinoma.—Adenocarcinoma, simple or papillary, accounts for less than 10 per cent of parotid tumors. The microscopic appearance may be well differentiated and innocent, but the ultimate fate of the patient with adenocarcinoma is sufficient evidence of the treacherous nature of this tumor. Adenocarcinomas tend to be poorly demarcated and infiltrating. The rather confusing terms "oncocytoma" and "cylindoma" designate a type of adenocarcinoma. As a rule, the growth of an adenocarcinoma is more rapid than that of the other parotid tumors; for this reason patients with adenocarcinoma usually seek treatment earlier.

4. Mixed Tumors.—Approximately 75 per cent of parotid tumors are so-called "mixed tumors." These are not confined to the salivary glands; they have been described as occurring also in the lacrimal glands, the nares, the tonsils and the lips. The typical site of origin in the parotid is in a comparatively circumscribed area just above and in front of the angle of the mandible. Occasionally the tumor develops just anterior to the tragus, in which position it may be confused with an enlarged preauricular lymph node.

Mixed tumors usually appear in patients from twenty to forty years of age.[5] They grow slowly, and may reach a diameter of 10 cm. They are usually ovoid but sometimes lobulated. Microscopically the tumors are made up of three components: complexes of epithelial cells in cords or ductlike structures, connective tissue of the mucoid type, and a substance identified as cartilage or pseudocartilage. The genealogy of these tumors is not certain.

There is a pronounced tendency toward recurrence following removal of these tumors. Marshall and Miles[9] reported on mixed tumors of the parotid in eighty-nine patients, twenty-five of whom had undergone previous surgical treatment. Ligation of the salivary ducts in dogs is said to produce mixed tumors; this gives rise to speculation as to the effect of interference with secretion following surgical removal of part of the gland.

5. Entodermal Cyst.—Sometimes known as adenolymphoma or papillary cystadenoma lymphomatosum, this rare and benign tumor probably arises from the lymphoid comglomerate that surrounds the first branchial cleft. It is a bulky mass of lymphoid tissue more closely resembling that of the tonsil than that of the salivary gland. It is dangerous to diagnose this tumor unless the lesion is bilateral, particularly if the diagnosis implies a less radical treatment than that indicated for mixed parotid tumors.

6. Tumors of Nonglandular Origin.—A variety of rare tumors arising from blood vessels, the facial nerve, lymphoid tissue and fibrous tissue of the capsule of the gland must be remembered. It may be helpful to recall that hemangioma is the most common tumor of this region in infants. Preoperative clinical diagnosis of this group of lesions is not usually made.

Some Common Misconceptions and Fears

We should now like to consider briefly some of the popular misconceptions and fallacies that have impeded progress in the treatment of parotid tumors.

The Fear of Facial Palsy.—This is the most common deterrent in the way of recommending or performing adequate surgical treatment of the

parotid gland. Too often there is a specter with an expressionless face, a drooping mouth and a tear-moistened cheek which appears when we speak of operating on this gland. We have found that major facial palsy occurs after division of one of the primary branches of the seventh nerve, but normal or nearly normal function returns after weeks or months. The anastomotic branches anterior to the parotid isthmus are no doubt responsible for recovery.

Facial palsy due to invasion of the seventh nerve by tumor is more frequent than that due to operation. There would seem to be no rational objection to operation on the basis of fear of injury to the seventh nerve.

A less known but equally troublesome result of nerve damage in the parotid region is the auriculotemporal (Frey's) syndrome.[2] When the patient with this injury eats, the cheek becomes hot, flushed and moist with perspiration. Hyperesthesia of the face is noted, especially during shaving.

The Fallacy of Waiting for the Tumor to Grow Larger.—The observation by McFarland[11] and by Kennon[7] that the recurrence rate was higher after removal of small tumors may be the basis of the practice of "waiting for the lump to get bigger." There are two explanations of this seeming paradox: one is that "small" tumors are commonly removed through short incisions, which give unsatisfactory exposure and result in incomplete removal; the second reason is that it is impossible to determine when a tumor is "small." Many parotid tumors present small surface swellings that mask a much larger underlying tumor. It has also been observed that pinhead-sized additional tumors may occur in juxtaposition to the large, more easily discernible tumor.

The Ugly Scar.—As we shall point out later, an anatomically correct incision may at the same time be cosmetically acceptable. Small transverse incisions designed to parallel the branches of the facial nerve should be abandoned in favor of an incision that displays the gland in its entirety.

Fear of Salivary Fistula.—Fistula rarely or never develops after removal of large portions of the parotid gland. A persistent fistula should make one think of persistent tumor.

The Pitfall of the Preauricular Lymph Node.—Mixed parotid tumor may be misdiagnosed as an enlarged lymph gland. The common sites of occurrence of mixed tumors should be kept in mind. If there is no obvious explanation for lymphadenopathy and the swelling continues to grow, the diagnosis of mixed tumor must always be considered.

The Pseudocyst.—The mixed tumor may be so soft and cystic as to lead the surgeon to suppose that he is removing a cyst. A cystic swelling is too often thought to be innocuous. Recall that simple cysts are rare and that the diagnosis of adenolymphoma should not be made in the presence of a unilateral lesion.

Roentgen Therapy.—Nearly all parotid tumors are definitely radioresistant. Adenolymphoma is the one possible exception that would respond to roentgen therapy. McFarland, after following patients with parotid tumors for years, found that no benefit resulted from this form of treatment. Janes,[6] of Toronto, who studied this subject, knows of no instance in which cure has been effected by roentgen therapy. He has, however, observed deep, penerating ulcers and intolerable pain which resulted from this treatment.

Technical Considerations

Anesthesia.—We routinely employ general inhalation anesthesia. Use of the endotracheal method permits easier access to the operative field, but the ordinary closed system with mask is satisfactory in some cases. Local anesthesia is frowned upon; inadequate anesthesia too often results in inadequate surgical handling. Further, the infiltration of tumor-bearing tissue and the obscuring of an already disturbed anatomic picture should be discouraged.

Incision.—One of two incisions may be employed. That preferred by Hamilton Bailey is a J-shaped incision from the level of the zygomatic arch, passing close to the pinna, curving around the root of the lobule of the ear to the tip of the mastoid process. If this incision does not permit visualization of the whole parotid gland, it may be extended downward on the anterior margin of the sternomastoid muscle.

The incision we prefer is one that passes from the zygomatic arch downward, very close to the pinna of the ear, and continues to just behind and below the angle of the mandible, then turns abruptly below the body of the mandible in one of the

natural skin folds of the neck. The lateral flap of this incision is then undermined from the region of the external auditory meatus. This exposes the posterior and inferior margins of the gland. In order to injure the facial nerve at this point, the operator would have to cut completely through the superficial portion of the gland. If ligation of the external carotid is to be done prior to dissection of a large tumor, it is done before flap dissection is initiated. The medial flap is then dissected free until the zygomatic arch, the body of the zygoma, the anterior edge of the masseter muscle and the mental foramen have been reached. If the tumor permits, the sheath of the parotid gland is reflected from behind forward as part of the flap. The field is now prepared for the definitive surgical procedure.

At this point it is well to insert a warning against an attempt to enucleate the tumor. In nearly all parotid tumors enucleation is an illusion. Small satellite tumors or tentacle-like extensions of the parent tumor, neither grossly discernible, may be left behind in spite of the appearance of clean enucleation. Attempts to shell out apparently discrete lesions no doubt account for most of the high recurrence rate (30 per cent or more) of mixed parotid tumors. Local excision of a parotid tumor would seem to be as irrational as local excision of a malignant tumor of the stomach or rectum.

The origin of most parotid tumors in the superficial lobe of the gland is a factor in favor of the surgeon. *Superficial lobectomy* (a term suggested by Bailey) will provide adequate tissue excision in most cases.

If lobectomy or total parotidectomy is elected, preliminary ligation of the external carotid artery will obviate much troublesome bleeding. The longest portion of the external carotid without branches, and therefore the easiest to ligate, is that between the superior thyroid and lingual arteries.

The superior margin of the gland should be cleared first, followed by cleaning of the anterior-superior aspect of the superficial lobe. The buccinator branch of the facial nerve will be identified superficial to Stenson's duct. This branch may be used as a key to the depth of the proximal divisions of the nerve. Stenson's duct is left intact, and removal of the superficial lobe of the gland is carried out from before backward until the isthmus is reached. If it is necessary to divide Stenson's duct, it is excised at this point. The isthmus may now be divided, care being exercised to avoid the major divisions of the facial nerve. Bleeding may be encountered from the external carotid artery or its branches and the posterior facial vein, which lie posterior to the isthmus, usually deep to the seventh nerve. The auriculotemporal nerve may be severed at this same point, posterior to the isthmus, where its course nearly parallels that of the vessels. This maneuver completes the superficial lobectomy.

If it is necessary to excise the deep lobe of the gland for a large tumor wedged in the space between the ramus of the mandible and the mastoid process, it is best to carry out the dissection outlined above as a preliminary step. If there is a question of damaging the main trunk of the seventh nerve, it may be well to resect the tip of the mastoid process, as suggested by Janes, in order to expose the stylomastoid foramen and trunk of the nerve. The posterior and lateral surfaces of the deep lobe are then freed so as to mobilize the lobe prior to the more hazardous dissection of its medial and anterior surfaces.

Injury to the Facial Nerve

Permanent and significant facial palsy will result only if the *main trunk* of the seventh nerve is divided proximal to the parotid isthmus. Recovery of function is the rule after damage to branches of the nerve anterior to the parotid isthmus.

Transitory paresis due to division of lesser branches of the seventh nerve may be corrected by the use of supporting adhesive strips. If drooping of the mouth persists, Dahlberg's internal splint (a dental prosthesis) may be employed.[4]

Division of the main trunk of the nerve is best avoided by initial excision of the superficial lobe and by resection of the mastoid process if the course of the nerve is still obscure. In cases of permanent palsy, one of the plastic procedures, such as the Lodge fascial transplant,[8] J. B. Brown's technique of subcutaneous fascial strips attached to the temporal muscle,[3] or the employment of braided tantalum sutures[12] in similar fashion, is recommended.

Summary

1. Attention is called to certain deficiencies in present knowledge related to the surgical anatomy and pathology of the parotid gland. Critical points of anatomy are reviewed, with special emphasis on the relations of the facial nerve.

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Physical Examinations in Industry as Cancer Case Finding Procedures

By C. D. Selby, M.D.
Ann Arbor, Michigan

PHYSICAL EXAMINATIONS in industry are usually for special purposes, such as: (1) selection and placement of people at time of employment and after absences from work for various reasons, (2) early diagnosis of occupational diseases with special attention to symptoms and findings of diseases resulting from the predominant occupational exposures found in the plant concerned, (3) estimations of disability in claims for compensation, (4) health maintenance, and (5) case-finding surveys, or special disease-control programs.

For each of these purposes an individualized routine is followed and rarely does it cover all parts and functions of the body. In employment and placement of new and returned employes, the examination is one that will permit recognition and estimation of handicaps and capacities as well as knowledge and skills. Examinations after absence from work may be limited so as to consist of questions mostly, with perhaps a casual inspection, depending on the length of time absent and reasons for absence. The extent is left to the judgment of the physician.

In the early diagnosis of occupational diseases the examination is one that will indicate presence or absence or improvement of occupational diseases. It, too, may be very limited, seeking only evidence of an occupational disease or two, known to be possible through employment exposures. In some instances it may be restricted to laboratory tests only. For disability estimations, the examination may concern only the part or parts affected.

For health maintenance, the examination may be very complete or partial depending upon the judgement of the physician making the examination. Usually, it is made periodically, sometimes annually, but more frequently every other year and sometimes not quite that often.

The extent to which a physician carries on such an examination will be suggested to him by the presence of symptoms or an employe's record of complaints. Health examinations, as they are called, are designed to assist employes in keeping well and employable, and to obtain early treatment from their family doctors if that is needed.

Case-finding examinations are also very limited procedures and sometimes consist only of laboratory work, as for example, in diseases of the chest and particularly the lungs and heart, diabetes, and cancer. Examinations of this nature are usually conducted in mass by agencies outside of industry. Within the last two or three years, however, some industrial physicians have made special efforts in connection with diseases of the heart, cancer of the lung, and other diseases which are non-occupational in nature but nevertheless, productive of disabilities which severely impair working capacities.

In view of the foregoing, it is evident that physical examinations in industry as ordinarily practiced do not offer unusual opportunities for cancer detection. The skin and other superficial malignancies may be spotted, of course, in one fashion or another, and when they are, the patients guided into proper channels for early care. Cancers of occupational origin are carefully sought after and found early. Their principal sources are paraffin, oil, pitch, and tar exposures. There are other cancer-causing industrial materials but they need not be specified at this time.

Generally speaking, industrial physical examinations cannot give sufficient attention to the areas most frequently involved in cancer, such as the stomach and prostate in men, and breast and cervix in women. The industrial examination, however, is contributing increasingly to the early recognition of lung cancer through use of chest x-rays as a routine feature of the examination.

Despite the limitations of examinations in industry, there are two ways through which early cancer detection can be promoted in industrial medical departments: (1) through the fine relationship which exists between the industrial physicians and employes served by them, and (2) the adaptation of certain features of the Hillsdale Plan to industrial medical procedures. Referring to the employe-physician relations, the opportunities by industrial physicians to counsel with employes are enjoyed to a like extent by few physicians outside of industrial practice. It is not unusual, for example, for employes to make one or two visits to

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Presented at Second Michigan Cancer Conference, Grand Rapids, Mich., Oct. 18, 1950.

Dr. Selby is Resident Lecturer in Industrial Health, School of Public Health, University of Michigan.

the medical department each month. In a plant employing 10,000 people this custom would therefore provide the plant physician and his staff with 10,000 to 20,000 employe contacts each month, each one of which is a personal and sometimes of a very intimate nature. Through the record which is kept of services of this kind, it becomes quickly evident that certain employes are suffering from conditions which require close study and perhaps active treatment by their family doctors. For example, one man comes in with symptoms of indigestion. He asks for soda bicarbonate. When this has happened a certain number of times, the nurse or doctor who has seen him decides that a study of the case is in order. It is studied, x-rays are taken, and malignancy of the colon is found. An operation was obtained early enough so prospects for a cure are reasonably good. Such was actually the case, yet various examinations received by the patient failed to indicate what was occurring while the record led to a study which did. This case illustrates what is happening in industrial medical departments and how routine services lead eventually to the discovery of malignancies earlier than had they come to their own doctors later on. It must be admitted that procedures of this kind do not rate as early detection procedures.

It may be that industry's contribution brought about in this fashion is sufficient, but the success of the Hillsdale program for tumor detection suggests that even greater successes can be obtained in industry if the plan can be integrated with routine industrial medical services. Of course that would mean that every industrial medical department is potentially a cancer detection center. There are, however, certain cases, especially in the women, where the plant physician cannot go so far. There would be too much criticism if, for instance, every woman in the plant had a vaginal examination or an examination of the breast. Industrial physicians simply cannot do that sort of thing, but they can follow up leads brought about by studies of the records and requests for service or advice from the employe. If they are not in a position to make the examinations themselves, they can send the employes to their own doctors as provided in the Hillsdale Plan. In that way industrial medicine becomes a feeder for doctors who are participating in cancer detection. Incidentally, this same routine results in fairly early discovery of other chronic diseases such as diabetes and heart disease.

There is a third way in which industrial medical departments can be helpful in the promotion of cancer control and that is through education. Dr. Joseph S. Devitt of Milwaukee, for example, has discussed cancer in an employe's magazine, and I believe that his contribution is sufficiently important to justify a complete quotation.

"In this year alone 200,000 persons are, with cold, statistical certainty, going to die of one single disease—cancer.

"Not a very pleasant thing to think about, is it? Can't something be done to cut down this death toll?

"My answer is Yes, something can be done—maybe. And the maybe depends in a large part on each one of us that may become a victim of cancer.

"At least half the folks who will die of cancer this year failed to help themselves in one of these ways: (1) they failed to pay attention to their symptoms of cancer; (2) they failed to have the courage to tell their physician of the symptoms, or (3) they failed to learn the symptoms of cancer.

"But, you may say, We're not doctors. How can we recognize the symptoms of cancer?

"Here's how—by simply remembering that any of the following developments may mean cancer:

"1. A lump anywhere in the body, especially if it is growing.
"2. A sore which does not heal.
"3. Continued indigestion or loss of appetite.
"4. A change in bowel habits.
"5. Bleeding from any body opening, such as the rectum, et cetera.
"6. Chronic cough, hoarseness.
"7. Difficulty in swallowing.

"If you will look back at the paragraph coming just before this list of seven cancer symptoms, you'll see that I said these symptoms may mean cancer. Other diseases besides cancer may cause any of these symptoms—and this is important to remember because it is the job of the doctor, once he knows about the symptoms, to search carefully and thoroughly and find out what diseases are causing them.

"You've got to co-operate with him in this job. Tell him about your complaints within a week or two after they begin. This may mean the difference between life and death for you.

"Far too many folks still labor under two very mistaken ideas about cancer. Their first mistaken idea is that a diagnosis of cancer amounts to a death warrant. Their second mistaken idea about cancer is that it sneaks up on a victim and develops to the stage where it can't be cured before it produces symptoms of its presence.

"Let's debunk these two phony impressions right now. Many cancers are being cured everyday by operation, x-ray, or radium—but not by anything else. Keep away from the salves, colored lights or grandma's vinegar and milk poultices—they won't help you a bit. Let your com-

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Cancer Control in Michigan

By Albert E. Heustis, M.D.
Lansing, Michigan

THIS DISCUSSION of cancer control in Michigan will be considered under three main headings: First, the problem; second, the history and present activities; and finally, the needs as I see them.

Fifteen per cent of all who die in Michigan, die of cancer. In our state, cancer is the second most common way to die. Last year in Michigan there were 8,697 deaths due to cancer. That's about one every hour. Twenty-five per cent of those dying of cancer last year had their disease in an accessible site. That is, the cancer was in a site which could be seen by the eye or felt by the finger.

Although some progress in the reporting of persons who are alive with cancer was made last year, we still have very very little knowledge about cases. We still know only about deaths. As yet we do not have enough data to tell at what age cancer occurs and what happens after that.

To increase our problems in dealing with cancer, we find that it is a disease in which as yet there is no single simple screening test to help us find it. In order to diagnose most cancer we need a careful history, a painstaking physical examination with all clothing removed and including an examination of all body openings. We often need detailed x-ray studies, and somewhere along the line there is usually an examination of the suspected tissue under the microscope. All of this takes professional time—the doctor's time.

Organized cancer-control activities began in Michigan about 1900 when the reporting of cancer as a cause of death was inaugurated. We have come a long way since that time. At the turn of the century diagnosis was mostly on the basis of subjective evaluation, while now we are relying more and more upon pathological study. Over the years there has been not only an increase in the accuracy of statistics, but we have developed better technical knowledge and skills on how to diagnose and how to treat cancer.

Presented at the Second Michigan Cancer Conference, Grand Rapids, October 18, 1950.

Dr. Heustis is Commissioner, Michigan Department of Health.

Throughout the years Michigan has led the way in cancer-control activities. This has been due in no small measure to the courage, the hard work, and the leadership of Dr. Norman Miller, who for many years has served as the chairman of the Michigan Cancer Control Committee. As doctors, our job is to save lives and reduce suffering, but Doctor Miller's contribution has been far above and beyond the call of duty—as a doctor, as a teacher, and as a friend. It seems to me that this conference should pause and reflect upon the contributions which Doctor Miller has made, and on behalf of this conference, as your State Health Commissioner, and as your student, I would like to say,

"Doctor Miller, we know and we will remember."

In addition to providing leadership, Michigan has led the way because of the initiative and the action of her private physicians, because of the action of the voluntary Michigan Branch of the American Cancer Society, and because of the work of official public health departments.

Organized cancer control started here in Michigan by having the usual activities in hospitals and in doctors' offices supplemented by cancer-detection centers or clinics, and we now have some fifteen such centers in operation. More recently we have seen the birth and the growth of the Family Physician's Plan or the Hillsdale Plan, and now some twenty to twenty-five Michigan counties are on record as accepting in principle this plan. It has also succeeded in gaining considerable national recognition.

Throughout it all, Michigan as a state has had a cancer-control committee in which, at the state level, opportunity has been given for those most active in cancer control to work together. This includes the Michigan State Medical Society, the Michigan Branch of the American Cancer Society, and the Michigan Department of Health.

During the past year, efforts have been directed at several things which I believe should be called to your attention. In lay education, there has been distribution of films and literature. There have been exhibits at fairs and other places; there have been radio programs, and there is the experimental use of the *High School Manual* in three counties.

Contributions in professional education have included the stimulation of general interest in cancer among local groups of doctors, postgraduate

courses, cancer days, articles in professional journals, and the distribution of the *Cancer Bulletin.*

In the northern peninsula, activity is under way, pointing up the joint financing of a laboratory to do Papanicolaou examinations.

In our whole state we have more and better facilities for diagnosis and treatment, and also there is provision for financial assistance where necessary for diagnostic examinations.

Work has been done to get all concerned to recognize and accept the challenge of the problem of cancer in their own communities.

These are quite imposing accomplishments, especially if we take into consideration the time and effort, and yes, even the money available for the work. It represents positive accomplishment.

There are some things on the debit side of the ledger too.

Cancer-control activities in Michigan have been hindered, made more difficult, or delayed by the striving for favored position of some persons or groups—a striving for power or control. This has not been on the surface always. It has concerned itself with many things, including who is to be the "king pin" in the show; who is going to get the credit; where is the case file going to be set up; how can the local health department be kept out or gotten in; who is to be in on the planning?

Cancer control is so big that there is room for everyone. There is not only room for everyone but everyone is vitally needed. The stakes are so high that there must be full co-operation—united planning. There is no place for behind-the-scenes maneuvering to see if credit or discredit can be brought upon any element of the program. There is a need for a positive enlightened program with all concerned in on the planning of the program, as well as in on its execution.

Cancer-control activities have been hindered, too, by the lack of an effective case-reporting mechanism. In my opinion, the reporting of cancer is not only legal but it is the most effective way to devise the best method of combating the disease. Rules and regulations concerning the reporting of cancer have been promulgated by the State Health Commissioner, approved as to form and legality by the Attorney General, and duly published in the Administrative Code. This has been done to protect those who would report voluntarily, and the action has been approved by the Michigan Cancer Control Committee.

The Michigan Department of Health is firmly on record in favor of cancer reporting. Where do the others in cancer control stand? If they are in favor of reporting, and some question its legality, those groups have a responsibility to see that it is brought about even to the extent of promoting any needed legislation. Do we really want to find out about cancer, or do we just want to talk about it?

No reporting mechanism for cancer will ever be effective until both the people who make out the reports and those who receive them are convinced of the need and the value of the procedure. Reporting of cancer cases should be talked about, and if the Michigan Department of Health and the Michigan Cancer Control Committee are wrong, then we should forget it. Here is an opportunity for a real contribution to cancer control.

Professor Bagwell gives a stirring talk on "Hats Off to the Past; Coats Off to the Future." This applies to cancer control just as much as to other activities.

The big need for the future, as I see it, is the acceptance by private physicians, lay groups, and local public health departments that a cancer-control program can serve its purpose and not only reduce suffering and death from cancer itself, but can do the same for a host of other diseases as well.

Another need is to develop better and more accurate ways of evaluating our educational program.

Finally, we need better local organization and co-ordination—planning, if you will. I am thinking of local conferences such as this. The start has been made in some places, you know. I am thinking of more local participation, more discussion of what people think their needs are—yes, even perhaps at state meetings such as this. A successful cancer program must include all groups with an interest in cancer. Local organization will result, not in a variety of local plans, but in everyone working together for local cancer control. Good local cancer control means good state cancer control.

Any program of cancer control, to be effective, must be a local program. Any successful program brings all interested persons actively into the planning phase, and there intimately concerned folks sit down and together plan a co-ordinated program.

(Continued on Page 407)

The Register in the Michigan Cancer Program

By C. J. Poppen, M.D.
Lansing, Michigan

NO COMMUNITY program can effectively control cancer without a knowledge of the number, location and characteristics of cases. Its principal objective is to obtain information concerning living cases at the earliest possible stage in the development of the disease.

There are two primary specific purposes for the Cancer Register; namely, (1) to facilitate service, and (2) to facilitate program planning and evaluation. The register serves as a foundation for the control program by functioning as a clearing house through which services offered by various health agencies are made available to the patient and his physician as needed. The use of records facilitates services by identifying the individual being served; indicating the nature and status of the case; providing a record of the services needed and given; scheduling activity; measuring effectiveness with which service is provided; assuring follow-up directed towards continuity of care, and making statistics available for planning and evaluating the service program.

The Register provides the basis for cancer program planning and evaluation. It provides the necessary data for measuring the nature and magnitude of the cancer problem for comparison with other communities and for evaluating the effectiveness of control measures. Data abstracted from all reported cases provides needed morbidity information including incidence, prevalence, the demographic and geographic distribution of persons with cancer, and the primary site and stage at diagnosis. The register may be used for determining the community requirements for different types of medical facilities such as diagnostic and treatment facilities, hospital beds, and nursing and terminal care homes.

The Cancer Register provides material for use in professional and lay education programs. Professional interest is aroused and maintained by information pertaining to primary site, method of diagnosis, therapy and the end results. The morbidity reporting system provides quantitative measures by examining trends in stage of diagnosis, utilization of accepted diagnostic techniques with respect to method of diagnosis; success of case holding by determining proportion of cases returning for re-examination or treatment at regular intervals; and the efficacy of various therapeutic techniques by analyzing survival and cure. Public awareness can best be aroused by indicating the size of the cancer problem, the importance of early and accurate diagnosis, and the need for adequate and continuous medical care. The significance of studies of time lags from the onset of symptoms until diagnosis and treatment should have special educational value to both the profesion and the public.

The Cancer Register should be established and maintained in each local community at the operating level of the program. To achieve completeness, the reporting system should cover every physician, hospital, clinic and medical facility.

In accordance with the provisions of Act 146, P.A. 1919, cancer was declared reportable in April 24, 1947, by the Commissioner of Health and was adopted by the State Health Council after review by the Attorney General.

The regulation is published as follows:

CANCER DECLARED REPORTABLE

(Adopted by State Council of Health, April 24, 1947)

On and after May 1, 1947, every physician, dentist, hospital superintendent and clinic director who has knowledge of a case of cancer shall, within ten days, report the same to the Michigan Department of Health on a form provided by said department. The report shall contain the name and address of the patient and either the name and address of the physician, or dentist, or of the hospital superintendent and hospital, or of the clinic director and clinic and such other data as may be required.

All such reports and records of the Michigan Department of Health pertaining to cancer are hereby declared to be confidential.

Summary

1. A Cancer Register furnishes the information on which effective programs can be based and maintained.

2. Statistical data measure the magnitude of the cancer problem.

3. Routine reporting of all cancer cases can be justified only if service is to be given.

4. Ancillary services offered by various health

(Continued on Page 428)

Dr. Poppen is Chief of the Section of Cancer and Adult Health Service, Michigan State Department of Health.

The Hillsdale Plan for Tumor Detection

A Three-Year Survey

By Arthur W. Strom, M.D.
Hillsdale, Michigan

THE PROGRAM for tumor detection which was begun by members of the Hillsdale County Medical Society has now completed three years of successful operation. Previous reports covering the first year[1] and the first nineteen months[2] of work done have been published. This summary may serve a useful purpose for other county societies which are contemplating tumor detection programs.

During this three-year period 3,563 tumor detection examinations have been made on 2,430 individuals—426 males and 2,004 females. Although all patients examined have been urged to be reexamined every six months, only twenty have had six examinations; fifty-eight, five examinations, and ninety-three, four examinations. Through this program eighty-nine cancers have been diagnosed. Examinations have averaged about 100 each month and show no trend to change in number. We have continued to find that two-thirds of the cancers found through this program were in early or moderately advanced stages, whereas only one-third of the cancers found during hospital or home examinations were in early or moderately advanced stages.

We have found that the plan is an excellent educational program for the laity and satisfies their need and demand for cancer-detection examinations. It has stimulated an awareness of the value of early cancer diagnosis on the part of our members to not only search for cancer in readily accessible locations, but to refer patients for roentgenological and laboratory examinations so necessary in the diagnosis of more obscure cancers. Our records indicate that the goal of early diagnosis of cancer in its curable stages is being approached more nearly than three years ago. The tendency on the part of those examined to consider one examination with negative findings as assurance against cancer for an indefinite period is on the wane. The desirable relationship of a patient with his own interested physician has been preserved in making every physician's office a tumor-detection center.

The Hillsdale County Medical Society has decided to continue its present record system of reporting negative findings as well as proven cases of cancer for an additional two-year period so that an evaluation of the volume of work done can be made. At the end of a five-year period another summary will be published. It is our intention to continue this plan of tumor detection as a permanent project in our community.

References

1. MSMS Cancer Control Committee: The Hillsdale Plan for tumor detection. J. Michigan M. Soc., 48:445, (April) 1949.
2. Strom, Arthur W.: The Hillsdale Plan in action. J. Michigan M. Soc., 49:302, (March) 1950.

MSMS

CANCER CONTROL IN MICHIGAN

(Continued from Page 405)

There is no reason why a community, if it so desires, cannot have a program that involves more than one method. There is no reason why the Family Physician's Plan or the Hillsdale Plan cannot work, and work very well, in a community that already has a cancer detection center.

Those interested in cancer should discuss and decide the need for reporting. If they decide that reporting is necessary, it is then their responsibility to do whatever is in order to bring about an effective system. I am not referring to committee action, but rather to forthright stands by whole organizations.

Cancer control is not a job for the cancer society alone; it is not a job for the private physicians alone or health departments alone. Without the active interest and mutual support and confidence of these and others interested in cancer, the people of Michigan will suffer. The cancer program is too big, much too big, for that to happen. Remember, in Michigan, one person died from cancer almost every hour last year. In cancer control we are not concerned with principles alone, we are concerned with human lives.

Whether Michigan people will live or die depend upon how well those interested in cancer control can and will work together.

Editorial

ANOTHER MICHIGAN FIRST

THE MARCH issue of The Journal of the Michigan State Medical Society was devoted exclusively to Atomic Energy and Civilian Defense. When the planning was in process it was anticipated that we might have a few short papers, which could be included in the Cancer number of The Journal. However, as material increased, it became necessary to delay the cancer papers which were to appear, and they are presented in this, the April number. The publishing of a complete Journal devoted to atomic material makes another Michigan First (the 27th).

CANCER EDUCATION

NO SCIENTIST yet has found the answer to two very important questions: (1) what causes a group of body cells to grow wildly in the first place, and (2) what is the agent that causes the reproduction of cells in normal healing to cease when restoration is complete but disappears completely when cancer growth begins?

Until someone finds the answer to these two questions, there must be an increasing educational program, both lay and professional, to try to keep the 1950 cancer death rate of more than 8,000 citizens of Michigan from reaching a five-figure mark by 1952.

The Cancer Control Committee of the MSMS has instituted pilot studies in the teaching of a non-frightening awareness of the basic principles of cancer to high school students in Genesee, Muskegon and Emmet Counties.

The reason: We would venture to guess that not more than one out of ten Michigan adults could name two of the seven early signs of cancer or be able to state positively that pain as a rule is a very late, and not an early, symptom of cancer.

This, in spite of the fact that the seven early signs have been printed countless times in newspapers and popular national magazines and in the millions of brochures that have been distributed through local branches of the American Cancer Society. These signs have been enumerated repeatedly in speeches before luncheon clubs, women's clubs and mixed adult audiences.

High school students are the cancer patients of tomorrow. An effort is being made to stress the fact that the only thing about cancer to be ashamed of is not that one has it but that patients do not present themselves early enough to be cured. We think that these youngsters are at a teachable age where ideas properly implanted will be retaind for a lifetime.

Education of the medical profession must parallel this lay program so that those laymen who do appear with suspicious symptoms may have the benefit of a careful and proper examination and then be advised to have the best-known treatment or combinations of treatment of the moment.

Our two medical schools are stressing the routine examination for cancer to all senior students. Postgraduate courses in cancer detection are available and cancer topics appear on every postgraduate program.

Cancer is not seasonal. It is no respecter of social position, financial standing, age, sex, color or creed. Cancer cells belong to no union with regard to working hours and the "take home pay" in neglected cases is inevitably death.

Even though we develop billion-volt machines or ultra-selective isotopes, change plantinum encased radium needles to radiocative cobalt needles, or revert to the radical Wertheim or mass gland dissection—surgical procedures alone or in various combinations—nothing can be accomplished until we have patients presenting themselves for treatment in a curable stage of the disease.

True, some obscure brain and liver lesions and the lymphoblastoma group do not lend themselves to either surgery or radiation and are slow to manifest their presence clinically.

Still, the medical profession must be alert to detect those that do respond to present-day methods and not pooh-pooh the fears of a matron who thinks she may have one of the seven signs of early cancer. Wishful thinking on the part of the doctor so consulted, who does not want his former kindergarten playmate to have cancer in the first place, may be the basis for patting her on the back and telling her to go home—unexamined! —and quit worrying. He has done irreparable

(Continued on Page 410)

Outmoded?

If we recognize confusion, ignorance, dereliction, insincerity and ideologies of tyranny in high government levels, it is our business to do something corrective. For this specific purpose our CAP (Co-operation with the American Public) answers the requirements. So far we have utilized it for but a small part of its inherent value. We believe there are many problems with which CAP should concern itself.

We believe our schools should have political science departments that would train aspirants to public office on the highest professional plane. Those, who choose a political career should be thoroughly indoctrinated with the ideologies of Americanism. He or she should be aware of how government was established to maintain the individual's rights. There is nothing new or outmoded about Democracy.

People, especially those of other countries, want to believe in what we stand for. The trouble is there is a wide gap between our ideals and our realities. If we can be instrumental in eventually removing some of the prejudice, religious and racial intolerance, bigotry and bias, over the next five years, we may still have a land where the individual's rights are supreme.

At the present time, Russia and her satellites number almost 800 million. The free nations account for about 750 million people. The remaining 700 million people of Asia will not always remain neutral. At present, they do not join freedom's ranks because they are confused. The confusion arises right here in America. We teach one thing but are headed rapidly for a socialistic totalitarian state. If we can live the principles of freedom in such a manner as to make them acceptable, then we can carry the balance of power and eradicate tyranny without armed strife.

The United Nations has been able to prevent armed conflict on eighteen occasions. Under the direction of many subdivisions, much has been done for the poorer underprivileged peoples of the world. Extraordinary progress has evolved to promote better health. In spite of unforunate adverse publicity, much good has been accomplished. Here, again, we must promote individuals who have the ultimate in training and integrity.

When we of the Michigan State Medical Society review this entire problem of public relations, we are likely to become discouraged. At such times I like to remember the story of the lecturer in an outdoor stadium who asked everyone in his audience to light a match when he counted three. No one who attended will ever forget the brilliance of the combined effort.

Democracy will be outmoded only if you and I permit it.

C E Umphrey M D

President, Michigan State Medical Society

President's



Message

CANCER EDUCATION

(Continued from Page 408)

damage to the lay education program and he may have caused her to lose the only chance for cure she had.

The answer to the two questions may be found tomorrow. It may be years. In the meantime we as physicians must keep learning and not the least lesson is to really do a physical examination on those who ask for it. In short, let "auld acquaintance be forgot."

HORACE WRAY PORTER.

THE DOCTOR'S INCOME

THE present necessity of reporting income, paying the tax, and predicting the future, incidentally making the preliminary advance payment, reminds us of a program we proposed several times in the past.*

The American Bar Association, in 1948, proposed two actions Congress could take to equalize the professional man with the executive in industry:

1. Adopt an amendment to the existing pension trust provisions permitting partners and individual proprietors to formulate pension plans, the costs of which are deductible in computing income tax, but to be subject to taxation when the trust is effective. This action would remove the discrimination against professional people.

2. Adopt a personal and individual retirement plan, whereby a person with earned income would be permitted to set aside a fixed proportion of his income each year for the benefit of his old age. Exemption from immediate income tax would be allowed if the funds were invested in specified non-negotiable government bonds. In later life, as these bonds mature, they would be subject to income tax in the year cashed.

Doctors, lawyers, dentists, and architects, who have a limited period of adequate income, should profit from the action of labor. The average union man never talks of his income—he talks only of "Take Home Pay." We could well do the same, and demand that we be allowed to so arrange our income that we will provide for our future. Labor does—we can.

Most persons employed by companies are covered by pension or profit-sharing plans which escape taxation as "operating expenses." These extra savings are taxed as they are received.

Self-employed professional men cannot now use this plan. Concerted and determined agitation, however, can bring a deserved readjustment.

*Journal MSMS, Sept., 1945, p. 1013; Sept., 1949, pp. 1171-2; July, 1950, p. 810.

E M I C

DO YOU remember the Emergency Maternal and Infant Care Program which the government enforced during the last war, whereby bureaucracies from Washington directed the care of wives and infants of those in military service?

The government paid the bill, inadequately, and controlled the service with restrictions and regulations "super-adequately." Do we want that again? It is being advocated in Washington, and by labor leaders, some in Michigan.

The medical profession is attempting to have a voice in the considerations, in the conferences, and in the establishment of a program, before too late. The proposal is to make it an emergency program now. Years passed before we could disentangle ourselves from this federal control imposed during World War II. If it should be re-established during this present so-called emergency, will it ever be discontinued?

During World War II, the E M I C program was proposed and enforced as a patriotic measure. No Doctor of Medicine objects to patriotic duties and he recognizes responsibilities to the children and wives of our fighting men, but we contend a more just scheme could be evolved and we thoroughly mistrust the bureaucrats who were in the driver's seat during the not yet finished World War II.

Five more years to statism! or just nothing if we have had an all-out atomic war. Those who would combat socialism must make up their minds to work awfully hard, and soon.

ON THE RUN . . .

Spider nævi are significant when multiple and widespread. They may occur normally in adolescent girls and pregnant women.

* * *

Large doses of penicillin are more effective than smaller doses because of the longer time during which they provide effective concentration.

* * *

After ten years have elapsed, patients with cholecystectomy have a mortality rate within the normal range.

* * *

Tonsillectomy has become increasingly elective with the introduction of the antibiotics.

—*Selected by* W. S. REVENO, M.D.

TV and Medicine

"All the world's a stage and all the men and women merely players . . ." Shakespeare said a lensfull, and that was before television. The broadcasting camera pours into millions of homes each day the truths and inanities of life because it photocasts *people,* all kinds of people. Lately the lens has encompassed the doings of the medical profession.

To good advantage the color TV camera has brought before Michigan M.D.'s the surgical procedures of master hands. Smith, Kline and French Laboratories sponsored direct telecasts to doctors of Detroit of surgical studies carried out under the aegis of Wayne University surgery professors. The American and International Colleges of Surgeons placed the techniques of their master surgeons before their colleagues, and the American Medical Association acclaimed this new teaching device in similar fashion. These telecasts were on closed circuits. All the public knew about them, they read in the newspapers. Maybe that was as it should be because many people can't stomach the sight of blood and would turn faint at viewing the manipulations of the scalpel, suture and hemostat.

But the people are curious about what the medical profession does and so it is only natural that the television camera should poke its lens into the doctor's office, and the hospital. Actually television had no choice in doing this because it will live or die by answering or failing to answer what the public asks to see on its video screen.

MSMS TV

When the Michigan State Medical Society was approached last September by television's representatives, there could be, in all common sense, no alternative to co-operating in placing before the people today's doctor of medicine. It was done. Each Sunday at 12:00 noon the electric cameras at WJBK-TV (Channel 2) grind for one-half hour to send into 400,000 homes in southeastern Michigan the "It's Your Life" Show, presented by the MSMS and sponsored by the Medical Arts Pharmacy of Detroit.

It's estimated that more than a million people listen, watch and sit in judgment as emcee Jack Pickering, science reporter of the *Detroit Times,* probes the experts with pertinent questions. The experts, of course, are doctors of medicine, chosen because of their knowledge in those separate fields of medicine that are most interesting to the general population.

The questions are prepared at the request of the doctor and are also obtained from letters submitted by the television audience. Supplementing the personal appearance on the program is a ten to fifteen minute motion picture depicting the principle thought of the program in dramatic fashion.

"It's Your Life" is a popular program. Tried out by Mr. Howard Mordue, president of Medical Arts Pharmacy, on a thirteen-week basis, the series has been renewed on a fifty-two-week contract.

Television Is Significant

There is little question that television will soon become—if it is not already—the greatest medium of mass education ever devised.

However, the significance of MSMS participation in television is not limited to mere participation in another communication medium. If such were the case, "It's Your Life" would be but one factor in the present well-rounded program which already embraces radio, newspaper, magazines, motion pictures, pamphlets, public speaking, et cetera. Instead it can be said that "It's Your Life" is the beginning of the active functioning of a year-round good citizenship campaign. It is directed toward placing the medical profession in the forefront of a statewide effort to take to the people the problems confronting them in respect to their social, physical and mental health and show *what* is being done about those problems, *who* is doing it, and *how* it is being done.

The medical profession has long recognized that *personal responsibility* of the *individual* is the cornerstone of good health. Today, as never before, it is apparent that "personal responsibility *of the individual*" is the cornerstone of good government. Consequently, "It's Your Life" is not limited to a discussion of the scientific in medicine but in each instance also presents the organizational effort being made, and the place in the effort of any individual interested.

Impressions Count

Probably of most importance in the television program, as it is in the entire public relations effort of the MSMS, are the "impressions" gained by those who are exposed to the program. These "impressions" prevail over all reason and all fact, yet they are often nebulous and, more often than not, unspoken. Only the most cunning surveys can measure them, and no scale yet has been devised to count them. In consequence, although public relations activity is designed to promulgate and produce certain impressions, it can only be measured, and that somewhat roughly, by measuring action resulting from impressions gained.

For example: The public has gained the impression that doctors of medicine are reliable authorities in the field of health. The public also has gained the impression that doctors of medicine are opposed to socialized medicine. As a result the public gains the impression that socialized medicine is something which is undesirable from the standpoint of their personal health.

Other impressions bear upon this basic impression, which is the reason why proponents of socialized medicine have attempted to discredit the medical profession by creating false impressions as to the reasons why the doctor is opposed, the authenticity of the doctors' opposition, the credibility of the doctors' knowledge in matters economic and social, the greater value of a totalitarian system as contrasted with our present system of medical care.

So far these and other false impressions have not been gained or accepted by a majority of the people or we would long since have taken more steps toward a complete socialistic state. The reason why such false impressions have not gained acceptance has been due to both a constant campaign to build confidence in the medical profession and to the continued confidence of the people in their individual family doctor.

This confidence has to be not only the assurance that the individual doctor and the medical profession generally has the *scientific ability* to cure or contain illness but also that the individual doctor and the medical profession has the means for *delivering* the care when it is needed. The medical profession generally has delivered that impression of confidence because it itself is confident and the doctor individually has done likewise.

Television Mirrors

To come back to television—television is a mirror that cannot lie. The Kefauver hearings are proof positive. Television reflects the weaknesses and the virtues, the thoughts and the desires of those who appear before its lens. Only in that it is more restricted is the television lens different from the public eye.

The medical profession proudly presents itself on television and in the public eye because all over the nation, and in Michigan particularly, the profession is confident of its power to serve the people's needs. It has and is taking steps to meet new needs as they arise. As long as it continues honestly to do so, the profession can be confident, and its reflected confidence will be in turn impression making—an impression that the public can safely rest their faith in their doctor and the medical profession generally under a system that recognizes the personal responsibility of the individual—the American System.

PHYSICAL EXAMINATIONS IN INDUSTRY AS CANCER CASE FINDING PROCEDURES

(Continued from Page 403)

mon sense take hold so you can look at the disease clearly: cancer practically always, in its curable stages, produces one or more of the seven warnings.

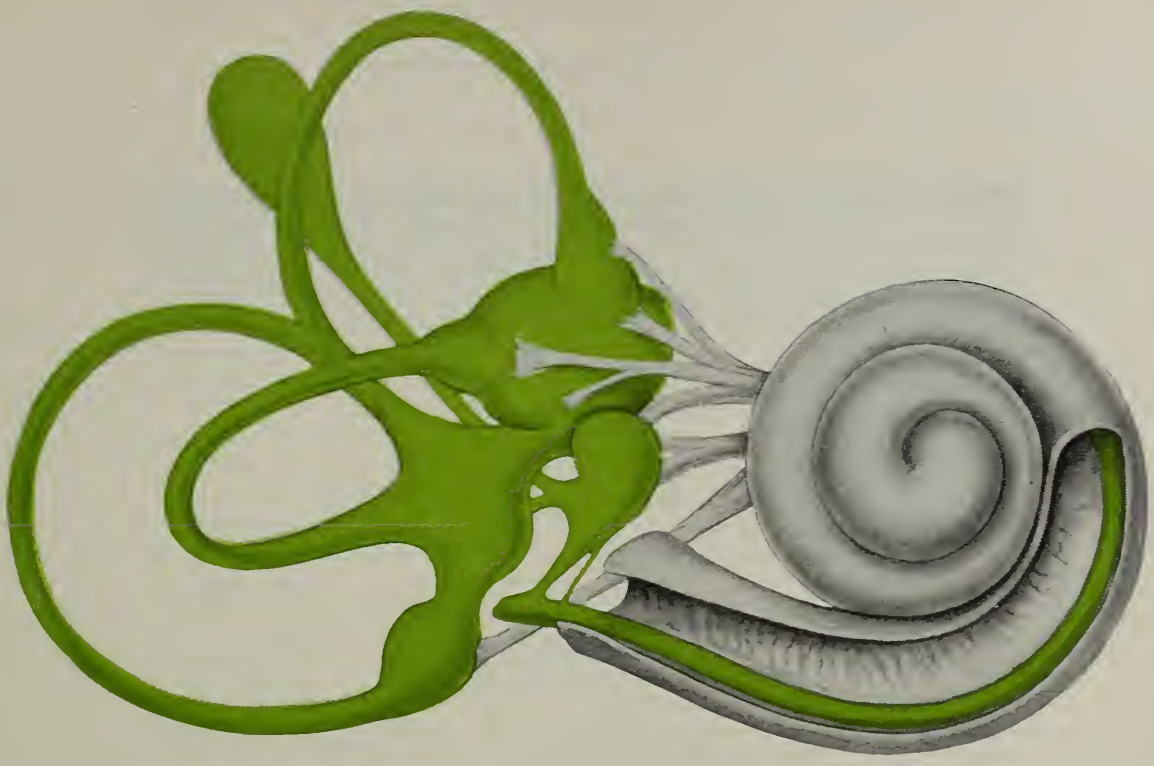
"And take cheer in knowing that if cancer is diagnosed early, it can be cured. But only you can give the doctor the chance to make an early diagnosis. Keep alert regarding the symptoms. It's up to you."*

Concluding Comments

Industrial medical examinations are highly specialized and can only be, through incidentals and by-products coming out of the examination, used for the early detection of cancer. It is suggested, however, that the day-to-day contacts in a plant between doctor and employe bring out leads which direct the doctor's attention to possibilities of early malignancies. Employes may then be examined by the plant physician but probably will be referred to their own family doctor or others who are participating in the cancer detection program. Education as carried on by many industrial physicians can be most helpful in attracting employes needing early diagnosis to physicians in the plants, whereupon they can be referred to their own doctors for subsequent study and treatment.

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*GM Folks, 13:10, (Sept.) 1950.



Detail of the Labyrinthine Structure

"The prophylactic value of Dramamine was conclusively demonstrated among 170 passengers who volunteered the information that they were unusually susceptible to motion sickness. . . . There was complete relief (freedom from any signs or symptoms of airsickness) in 152 cases or 89.5 per cent; . . . ."

—Tuttle, A. D.: Special Breakdown of Case Histories, presented at the Airlines Medical Directors Association Meeting, New York, N. Y., Aug. 28, 1949.

DRAMAMINE® Brand of Dimenhydrinate

For the prevention or treatment of motion sickness caused by automobiles, streetcars, ships, planes, trains and other vehicles.

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ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

RESEARCH IN THE SERVICE OF MEDICINE **SEARLE**

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

NEEDED: 709 PUBLIC HEALTH WORKERS

To fill vacancies and to meet minimum standards set by the American Public Health Association which call for one public health physician and one sanitarian for every 25,000 persons, Michigan's local health departments now need at least twenty-eight additional public health physicians and thirty-four additional sanitarians. To fill vacancies and provide public health nursing services in the recommended ratio of one nurse for every 5,000 persons, Michigan needs an additional 647 public health nurses to supplement those now employed by local health departments and boards of education.

The fluoridation of public water supplies for the partial prevention of dental caries now has the endorsement of the following national professional organizations: The American Dental Association, the State and Territorial Dental Health Directors, the American Association of Public Health Dentists, the United States Public Health Service, the State and Territorial Health Officers Associations, the American Public Health Association and the American Water Works Association.

Five Michigan cities are among the seventy in the nation which are already fluoridating their public water supplies. Ten others have fluoridation plans approved. Cities fluoridating their supplies include: Grand Rapids, where the Michigan Department of Health, the United States Public Health Service and the city have been cooperating in a fluoridation experiment for the past six years; Midland; Ludington; Algonac; and Hastings. Plans have been approved for fluoridation of the supplies of Wyandotte, Saginaw, Grosse Pointe Farms, Jackson, South Haven, Grand Haven, Muskegon, Mt. Clemens, Marquette and Norway.

The drinking of fluoridated water from birth until eight years, can reduce dental decay as much as 65 per cent in groups of children.

The Heart Issue of *Michigan Public Health* (February) is directed particularly to the thousands of Michigan people, children and adults alike, who have heart ailments. It contains articles on rheumatic fever, high blood pressure, coronary heart disease, research being conducted by the Michigan Heart Association and the Cardiac Housewife program of the Heart Association.

In addition, it contains articles on air pollution hazards in Michigan, new hospitals being constructed in the state, the hazards of x-ray shoe fitting, the prevention of congenital syphilis and many other topics. A copy of the issue, or a year's free subscription to *Michigan Public Health* will be sent to any Michigan resident.

The Middle States Public Health Association will meet April 19 and 20 at the Congress Hotel, Chicago. Members of this association are public health workers from Michigan, Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Ohio, Nebraska, North Dakota, South Dakota and Wisconsin.

What air pollution means to Michigan communities from the standpoint of danger to health, the development of slum or blighted areas, decreased property valuation, decreased tax revenue and harm to the tourist trade was reviewed for Michigan municipal officials in an air pollution institute held at Michigan State College, recently.

Planned by the Division of Industrial Health, Michigan Department of Health, the Department of Engineering of the College, the Municipal League and Industry, the institute pointed up the need for continuing and increasing effort to control air contamination in the state. It considered engineering and other means of correcting and mitigating the effects of industrial air pollution, as well as model ordinances.

Approximately sixty-five mayors, managers, physicians, attorneys, engineers and local health department people participated in the sessions.

A behind-the-scene job of health protection is the Interstate Carrier Watering Point Sanitation program of the Michigan Department of Health. This program is designed to prevent the transmission of food and waterborne diseases to the traveling public and through them to the public at large. Engineers of the Department investigate the sanitation of all sources of milk, cream, ice cream, and the catering establishments for railroads, airplanes and vessels used in interstate travel. This includes fifty-seven depots and railroad yards, airports and ports of call.

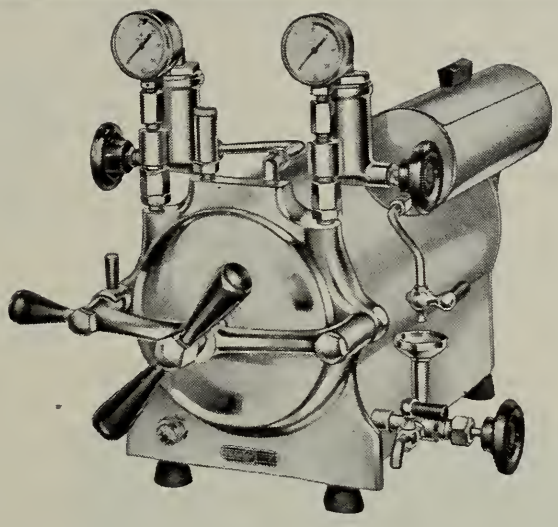
Anticipating April as Cancer Control Month, the March issue of *Michigan Public Health* contains a series of articles on cancer in its more common sites. Special attention is given breast self-examination in the early recognition of cancer of the breast. Copies of the Cancer issue are available.

A new directory of county, district and city health departments has been compiled by the Division of Local Health Administration. A copy of this directory has been sent to each local health department. Additional copies of the directory are available from the Michigan Department of Health.

John L. Isbister, M.D., former staff physician of the Ingham County Sanatorium, joined the staff of the Michigan Department of Health March 1. Dr. Isbister will act as "Tuberculosis Control Officer," working directly with physicians, county health directors and sanatoria directors of the state.

AUTOCLAVE STERILIZATION ALWAYS THE SAFEST . . .

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PRESSURE and TEMPERATURE in SECONDS

Now, for the first time, Pelton . . . the pioneer in the field of small autoclave sterilization . . . presents the new FL-2. *It reduces minutes to seconds between consecutive sterilizing periods.*

As one load is sterilized, just remove it and begin sterilizing the next load in only a few seconds. No more waiting periods to bring up necessary temperature and pressure. No more wasted time. Simply turn valve to let steam, already generated and stored under pressure in outer chamber, pass into inner chamber.

The new, fast Pelton FL-2 is a scientifically-designed, precision-built autoclave. It uses the exact safe, fast principles of large hospital sterilizers: double boiler, air discharge valve, reservoir-condenser to convert steam to distilled water for re-use in boiler (no steam discharge in room), solid bronze safety door, positive door lock and safety catch, fully automatic.

• • •

Pelton FL-2 is today's best investment in safe, speedy sterilizing. See it at your dealer's or write for literature.

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. . . . . NEWS MEDICAL

Michael Reese Hospital, Chicago, is now registering applicants for postgraduate courses to be held during the spring and summer of 1951. These include clinical dermatology, surgery, recent advances in internal medicine, recent advances in pediatrics, diseases of the endocrines, hematologic diagnosis. The courses run from April 2 to August 4. All courses starting on or before July 25, 1951, are approved by the Veterans Administration and may be taken under the GI Bill of Rights. For complete program and information, write Dean Samuel Soskin, M.D., 29th St. and Ellis Ave., Chicago 16, Illinois.

* * *

The Oak Ridge Institute of Nuclear Studies announces a course in the theory and techniques of autoradiography, for three to four weeks beginning July 2. For information and application, write Ralph T. Overman, Chairman, Special Training Division, Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tennessee.

* * *

HAVE YOU MADE YOUR HOTEL RESERVATIONS?

Michigan State Medical Society
86th Annual Session
Grand Rapids, September 26-27-28, 1951

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant.

Committee on Hotels, Michigan State Medical Society,
c/o E. J. Brunette, Secy.
Pantlind Hotel, Grand Rapids, Michigan
Please make hotel reservation(s) as indicated below:

Hotel.....(1st choice)

Hotel.....(2nd choice)

.....Single Room(s)

.....Double Room(s) for.....persons

.....Twin Bedded Room(s) for.....persons

Arriving September.....hour.....A.M.....P.M.

Leaving September.....hour.....A.M.....P.M.

(Names and addresses of all applicants including person making reservation.)

Name	Address	City	State
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Date..... Signature.....

Address..... City.....

DETROIT, with 30 per cent of Michigan's population, had 57 per cent of the state's tuberculosis deaths in 1949. The 797 tuberculosis deaths for Detroit residents represent a rate of 40.5 per 100,000 population. The rate for Michigan as a whole was 22.0; for the nine other Michigan cities with populations over 50,000, the rates ranged from 9.9 to 22.2.

As of December, 1950, Detroit and the rest of Wayne County hospitalized 2.58 tuberculosis cases per annual tuberculosis death. Michigan excluding Wayne County hospitalized 4.08 cases per annual death.

—Michigan Tuberculosis Association

Prof. W. L. Mallmann, head of the Department of Bacteriology and Public Health, Michigan State College, has been appointed a member of the MSMS Committee on Atomic and Allied Procedures. Other important scientists on this committee include: K. H. Corrigan, Ph.D., Detroit; Howard B. Lewis, Ph.D., Ann Arbor, Dr. John J. Grebe, Midland; Dr. Laurence L. Quill, East Lansing.

* * *

J. B. Wyngaarden, M.D., and M. H. Seevers, M.D., Ann Arbor, are authors of an original article "The Toxic Effects of Antihistaminic Drugs" which appeared in JAMA of February 3, 1951.

* * *

Vice Admiral Joel T. Boone, U. S. Navy, retired, took the oath as chief medical director of the Veterans Administration on February 28.

* * *

The Western Institute on Epilepsy, will be held in Salt Lake City the week end of June 22-24, 195.. For program, write Harriot Hunter, M.D., President, 4200 E. 9th Avenue, Denver 7, Colorado.

* * *

The National Gastroenterological Association's 1951 award contest, for the best unpublished contribution on gastroenterology or allied subjects, features as top prize a Certificate of Merit and a $100 award. Entries must be received not later than June 1, 1951. For additional information, write to the Association, 1819 Broadway, N. Y. 23, N. Y.

(Continued on Page 418)

Modern Diathermy

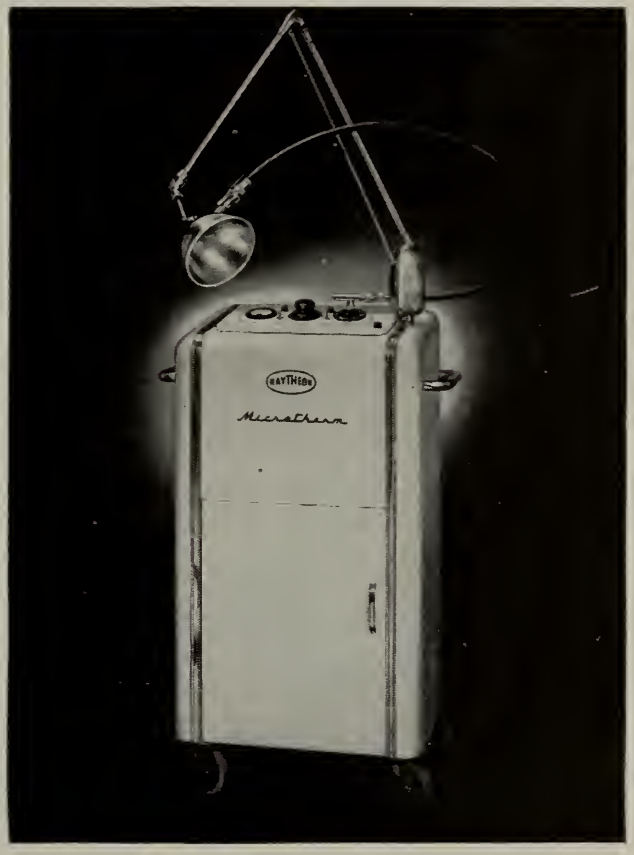
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MEDICAL-PERSONAL RELATIONS IN INDUSTRY

The School of Public Health at the University of Michigan offers a special program on Medical-Personal Relations in Industry, May 17 to 19, 1951. The discussion will provide a limited group of industrial medical directors and psychiatrists opportunities for meeting with faculty members of the University of Michigan. Applications for enrollment should be sent to Harry E. Miller, Director of Continued Education, School of Public Health, University of Michigan, Ann Arbor, Michigan. Enrollment fee is $10.00. Physicians in charge of industrial medical departments and medical assistants, psychiatrists, psychologists and other staff members when designated by the physician in charge are eligible to attend. Attendance is limited to fifty persons.

Limited room accommodations are available at the Michigan Union. Applications for such quarters should be made direct to the Michigan Union stating the accommodations desired.

Thursday, May 17, 1951

9:00-11:30 "Nature and Extent of Personality Problems in Industry"
C. H. Keene, M.D., *Chairman*

2:00- 4:00 "Identification and Diagnosis of Personality Problems in Industry"
Ralph T. Collins, M.D., *Chairman*

Friday, May 18, 1951

9:00-11:30 "Training of Medical Staff for Interviewing"
Henry S. Brown, M.D., *Chairman*

2:00- 4:00 "Clinical Psychology in Industry"
Jean S. Felton, M.D., *Chairman*

Saturday, May 19, 1951

9:00-11:30 "Problem of Aging in Industry"
R. B. Robson, M.D., *Chairman*

Cook County Graduate School of Medicine

ANNOUNCES CONTINUOUS COURSES

SURGERY—Intensive Course in Surgical Technic, two weeks, starting April 16, April 30, May 14.
Surgical Technic, Surgical Anatomy and Clinical Surgery, four weeks, starting April 30, June 4, July 9.
Surgical Anatomy and Clinical Surgery, two weeks, starting April 16, May 14, June 18.
Surgery of Colon and Rectum, one week, starting May 14, June 4.
Esophageal Surgery, one week, starting June 4.
Thoracic Surgery one week, starting June 11.
Gallbladder Surgery, ten hours, starting June 18.
Breast and Thyroid Surgery, one week, starting June 25.

GYNECOLOGY—Intensive Course, two weeks, starting April 16, June 18.
Vaginal Approach to Pelvic Surgery, one week, starting May 7, June 11.

OBSTETRICS—Intensive Course, two weeks, starting June 4.

MEDICINE—Intensive General Course, two weeks, starting April 23.
Gastroenterology, two weeks starting May 14.
Gastroscopy, two weeks, starting May 14.
Electrocardiography and Heart Disease, two weeks, starting July 16.

PEDIATRICS—Congenital and Acquired Heart Disease in Children, two weeks, starting May 7.
Cerebral Palsy, two weeks, starting July 9.
One year Full Time Clinical Course starting July 2.

General, Intensive and Special Courses in all Branches of Medicine, Surgery and the Specialties.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: REGISTRAR, 427 South Honore Street
Chicago 12, Illinois

(Continued from Page 416)

Emergency Doctor Call System.—Medical societies in 329 communities have established night and emergency call systems, according to a recent AMA report.

"While these plans vary greatly according to the size of the community, they all have the same purpose—to guarantee that the people of the community can obtain a doctor at any time of the day or night, any day in the year," stated Louis H. Bauer, M.D., of Hempstead, N. Y., Chairman of the Board.

Dr. Bauer urged all county medical societies that have not yet established a formal plan for answering night and emergency calls to make that a project during the next few months.

* * *

The Michigan Pathological Society met at the Henry Ford Hospital on February 10, 1951. Dr. A. James French, Associate Professor of Pathology at the University of Michigan, presided as the newly elected President of the Society. Some sixty members and guests attended.

Those contributing to the program were: Dr. Sture A. M. Johnson, Professor of Dermatology at the University of Wisconsin, who spoke on "Mycological Considerations as Related to Pathology"; Dr. B. S. Kline, Assistant Professor of Pathology at Western Reserve University and Laboratory Director of the Mt. Sinai Hospital at Cleveland, who gave a paper on "Recent Advances in the Serodiagnosis of Syphilis"; and in addition to these two guest speakers, a member of the society, Dr. S. E. Gould,

(Continued on Page 420)



some things are Hard To Describe

Some advertisements are more difficult to write than others. What words, for instance, will tell you how handsome, yet how practical, Hamilton Colortone examining room equipment is? We can say— . . . that any of the four distinctive new Colortones brings a gracious note of color to your examining rooms.

. . . that Colortone retains and enhances all the warmth and richness of fine, selected natural wood grains—hand-finished to perfection by Hamilton Craftsmen.

. . . that Colortone brings new beauty to the color scheme in any office.

. . . that Hamilton equipment embodies 28 separate work-designed features to make your every office hour more pleasant and productive.

Yet, we'll have to rely on your own judgment and alertness to recognize that Colortone is a genuine innovation. Be sure to see our display of Colortone equipment soon.

For natural beauty it's Colortone . . . by Hamilton, of course!

"For Finer Equipment"

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INFRA-RED LAMPS

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The Z-70 Zoalite — prescription model for use in the home over short or long periods.

The Z-12 Zoalite — 600 watts — a professional infra-red unit.



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(Continued from Page 418)

Associate Professor of Pathology at Wayne University and Laboratory Director at the Wayne County General Hospital, who spoke on "Diagnostic Tests and Methods of Control in Trichinosis."

At the December meeting in Ann Arbor, Dr. Walter A. Stryker of Wyandotte was made President-elect, and Dr. C. Allen Payne of Grand Rapids, Secretary-Treasurer.

* * *



J. L. Leach, M.D.

J. L. Leach, M.D., of Flint, has been elected a member of the Board of Directors of the National Association for the Advancement of Colored People, for a three-year term.

Dr. Leach is President of the Michigan State Conference of Branches of the NAACP, Chairman of the State Presidents' Association and for the past three years has served as Chairman of the Committee on Economics of the Genesee County Medical Society.

* * *

Meyer O. Cantor, M.D., and **Don W. McLean, M.D.**, Detroit, are authors of an original article entitled "Intestinal Gas Patterns as a Diagnostic Aid" which appeared in the *American Journal of Roentgenology and Radium Therapy.*

* * *

Max R. Burnell, M.D., Detroit, Chairman of the MSMS Industrial Health Committee, was guest speaker on a panel at the 11th Congress on Industrial Health, in Atlanta, Georgia, on March 1-2-3, 1951. The subject of the panel was "Cardiacs in Industry." Dr. Burnell was official representative of MSMS at this Congress.

* * *

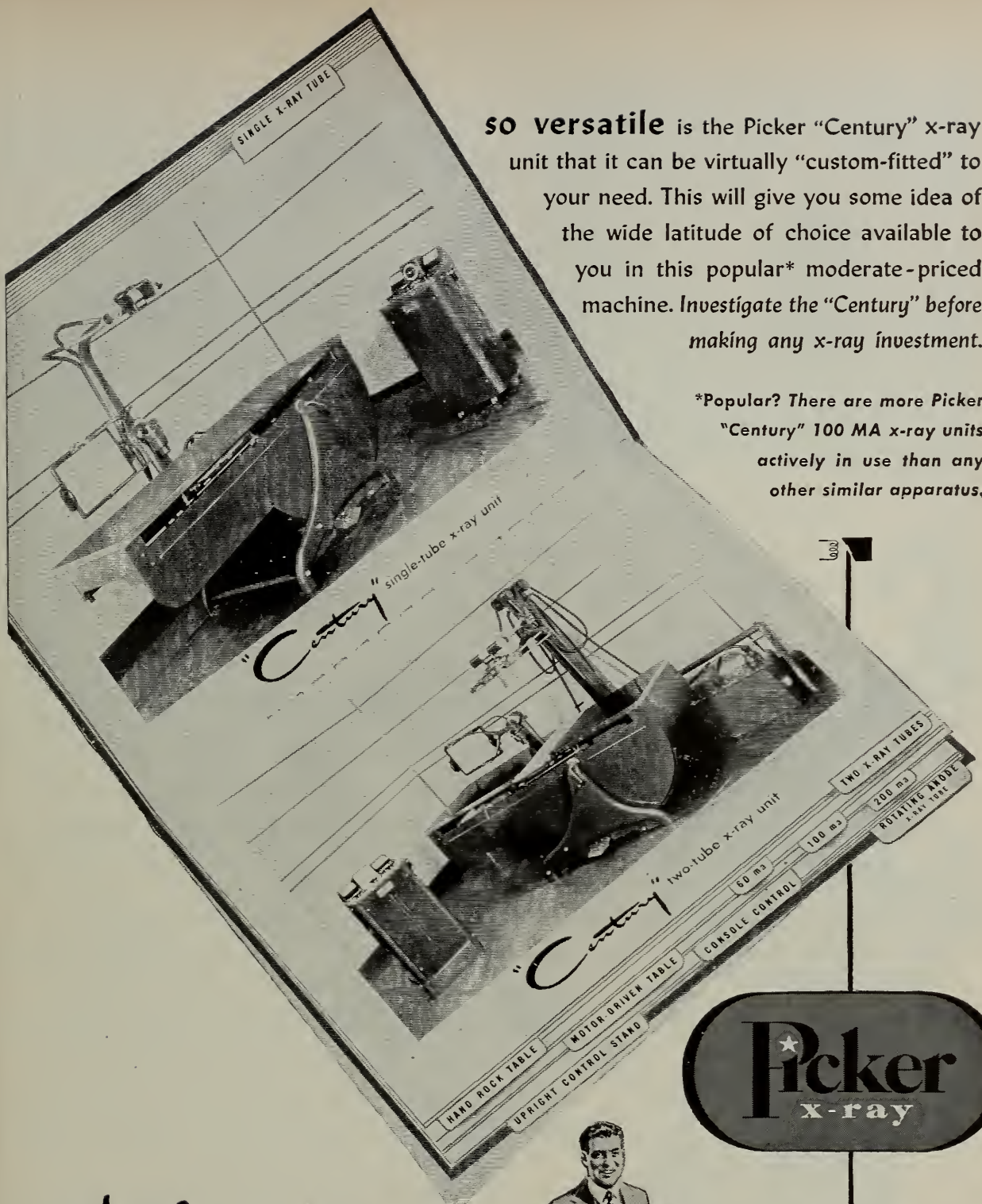
American College of Surgeons will hold a sectional meeting May 9-11, 1951, in Detroit. On May 9, the University of Michigan Hospital will schedule an excellent day of clinics in Ann Arbor and all registrants are invited to attend this as well as the Wayne Annual Clinic Day at the Fort Shelby Hotel, Detroit. May 10-11 at the Book-Cadillac Hotel, Detroit, will include several new surgical motion pictures, papers, panel discussions and symposia on various surgical subjects. The program will also include special attractions for General Practitioners. A five-dollar registration fee will be required, except from Fellows and members of the Junior and Senior Candidate Groups of the College and from interns and residents. For program, write ACS, 40 E. Erie St., Chicago.

* * *

Ohio State University Health Center on the campus will hold dedication ceremonies May 14-16, 1951. Formal dedication will be at 11:00 a.m., May 15, in the Health Center Quadrangle. May 15 will see scientific

(Continued on Page 422)

Say you saw it in the Journal of the Michigan State Medical Society



so versatile is the Picker "Century" x-ray unit that it can be virtually "custom-fitted" to your need. This will give you some idea of the wide latitude of choice available to you in this popular* moderate-priced machine. *Investigate the "Century" before making any x-ray investment.*

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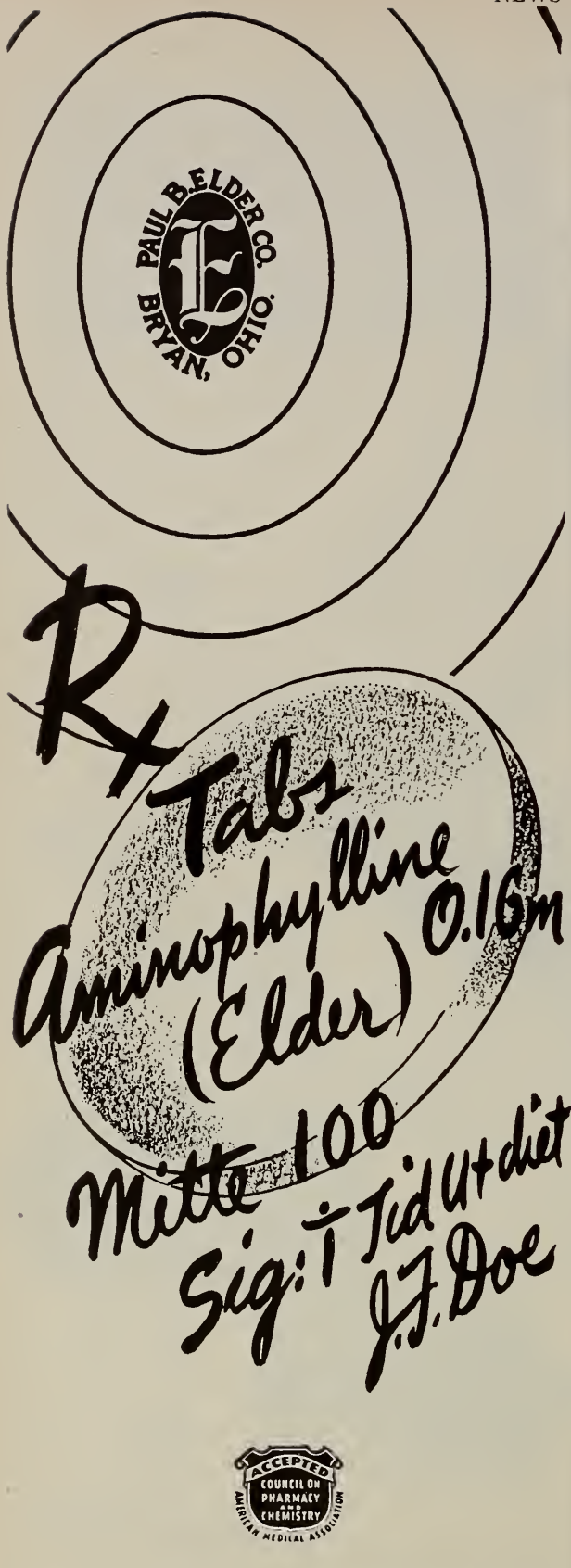


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Branches in Detroit, Los Angeles

(Continued from Page 420)

sessions of the Post-Collegiate Assembly of the College of Medicine in the Auditorium of the Ohio State Museum. All alumni are invited to attend.

* * *

Michigan Authors

J. H. Hertzler, M.D., and **C. E. Maguire, M.D.,** Detroit, published an article, "Congenital Dilatation of the Common Bile Duct: Report of Two Cases in Children," in the *Archives of Surgery,* February, 1951.

Kenneth B. Babcock, M.D., Detroit, published an article, "Telecasts Offer Hospitals a Mass Teaching Medium," in *The Journal of The American Hospital Association,* February, 1951.

Roscoe C. Hildreth, M.D., Kalamazoo, published an article, "Jewels of the Dark Room" in *The X-Ray Technician,* July, 1950; also the *British Journal of Radiology,* December, 1950.

William G. McEvitt, M.D., Detroit, published an article, "Treatment of Acne Pits by Abrasion with Sandpaper," which was reprinted with additions, from *The Journal of the American Medical Association,* March 4, 1950.

Claire L. Straith, M.D., F.A.C.S., F.I.C.S., Detroit, published an article, "Repair of Single Cleft Lip by the Hagedorn-Le Mesurier Technique," in *The Journal of the International College of Surgeons,* April, 1950.

Harold C Conn, M.D. and **Paul W. Feldman, M.D.,** Detroit, published an article, "Treatment of Amebiasis—Results with Diodoquin and Carbarsone" in the *Postgraduate Medicine,* February, 1951.

Harold C. Conn, M.D., Detroit, published an article, "Treatment of Amebiasis—Results with Bismuth Glycolylarsanilate," in *Postgraduate Medicine,* February, 1951.

Norman F. Miller, M.D., Ann Arbor, gave a paper, "Care of the Postpartum Woman" at the annual session of the Iowa State Medical Society, April 25, 1951.

J. B. Wyngaarden, M.D., and **M. H. Seevers, M.D.,** Ann Arbor, published an article, "The Toxic Effects of Antihistaminic Drugs," in *The Journal of the American Medical Association,* February 3, 1951.

Hermann Pinkus, M.D., of Detroit, published an article, "Granulomas with Eosinophilia ("Eosinophilic Granulomas") in *Medical Clinics of North America,* March, 1951.

Max Karl Newman, M.D., of Detroit, presented a paper, "Management of Neuromuscular Disturbances Due to Cerebral Vascular Injuries" at the Latin-American Congress of Physical Medicine, Ciudad Trujillo, Dominician Republic, University City, on March 20, 1951.

Leonard E. Himler, M.D., of Ann Arbor, published an article, "Human Relations and Accident Prevention," in *Industrial Medicine and Surgery,* March, 1951.

(Continued on Page 424)

WHETHER THE REASONS ARE PHYSICAL OR PSYCHOLOGIC..



When for a physical or psychologic reason, the physician decides to depend on a spermatocidal jelly to protect the patient, he cannot do better than prescribe the "RAMSES"* Vaginal Jelly† Set No. 3.

Used as directed, the plastic applicator deposits 5 cc. of "RAMSES" Vaginal Jelly over the cervical os.

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AVAILABLE in a regular 3-ounce tube and an economy-size 5-ounce tube.



Photo taken after insertion of "RAMSES" Vaginal Jelly. Os occluded.

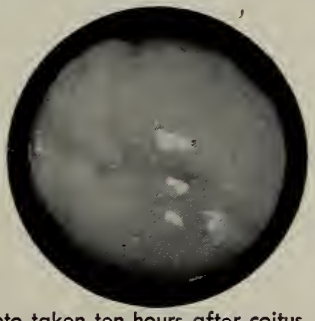


Photo taken ten hours after coitus. Occlusion still manifest.

Jelly stained with nonspermatocidal concentration of methylene blue for photographic purposes.

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Hospitalization in the conventional type of hospital is hardly the answer to the needs of your patients suffering from emotional strain or psychosomatic difficulties. Such patients, in order to make the most rapid recovery, can profit much more from sanitarium care designed to individualize the required treatment.

Precisely this type of care is available for your patients at Battle Creek Sanitarium. A board-certified psychiatrist heads a competent professional and nursing staff experienced in handling patients of this type. In addition, such facilities as physical therapy and hydrotherapy, as well as spacious grounds and surroundings that are outstandingly beautiful, all contribute to the patient's rapid readjustment and a renewed cheerful outlook on life.

Battle Creek Sanitarium has been offering its outstanding services continuously for 85 years; James T. Case, M.D., is president of the Board of Trustees.

Wire or call collect for complete information on availability of accommodations.

THE BATTLE CREEK SANITARIUM
BATTLE CREEK, MICHIGAN

(Continued from Page 422)

Vocational Rehabilitation.—The annual report of the Office of Vocational Rehabilitation says, "The Nation's two million handicapped men and women constitute one of the few sources at hand to supply our growing manpower requirements." During 1950, 59,597 persons were fully rehabilitated and employed; 11,946 were employed, but under observation, and 13,375 persons are ready for job placement. It is estimated these persons within the next four years will have repaid in income taxes the cost of this rehabilitation, 20.3 million dollars for the year 1950.

* * *

The State Board of Education is holding the Eleventh Annual Parent Institute-Nursery School of the Michigan School for the Deaf, Flint, Michigan, April 2, through April 13. The key speaker will be Mrs. Spencer Tracy, speaking from her own experience as the mother of a deaf son, April 13. Quite an extensive program is provided, including: Bruce R. Siders, superintendent, Michigan School for the Deaf—*Our Aims for You;* Thomas H. Poulos, principal, Michigan School for the Deaf—*Making Use of Residual Hearing;* Mary A. Blair, consultant, Division of Special Education, Department of Public Instruction, Lansing—*Language Development in the Young Deaf Child;* M. Bethel Clifford, field service assistant, Michigan Association for Better Hearing, Lansing—*Lipreading, a Boon to the Deafened;* Clifford E. Mohan, supervising teacher upper academic classes, Michigan School for the Deaf—*The Testing of Hearing;* Bruce S. Siegenthaler, senior clinician, Spech Clinic, University of Michigan, Ann Arbor—*New Developments in the Field of Testing;* H. Earle Correvont, director, Office of Vocational Rehabilitation, Department of Public Instruction, Lansing—*The Services of the Office of Vocational Rehabilitation;* Earl W. Jones, teacher, Michigan School for the Deaf—*Adjustment of the Adult Deaf.*

* * *

World Medical Association.—The Fifth General Assembly of The World Medical Association will be held in Stockholm, Sweden, September 15 to 20, 1951, and will be followed on September 21, by a meeting of the Medical Editors of the world.

About twenty members of the United States Committee attended the Third General Assembly in London, and a large number attended the Fourth General Assembly in New York City. The World Medical Association hopes that many will be able to attend the Fifth General Assembly. While voting members of the Assembly are restricted to two from each national member association, you as a member of the United States Committee are entitled to attend as an Observer, and a credential card as such will be issued you by this office if you desire to attend.

It is understood that several members are planning a trip to Europe next summer, and it is suggested that they plan, if possible, to remain for The World Medical Association meeting. Other meetings at about the same time are:

(Continued on Page 426)

A New Address . . .

Detroit's Finest Optical Firm



A view of the foyer and service desk at Ion Optical Company's new Detroit office.

Entrance to Ion Optical's new Detroit office, at 40 W. Adams.

. . . Ion Optical Company, successors to Uhlemann Optical Company of Michigan, is now in its new home at 40 West Adams. Please accept this invitation, doctor, to stop in and see for yourself the beautiful and modern surroundings we have provided for you and your patients. Of course, as in the past, our skilled craftsmen and our ethical operation will continue to guarantee complete satisfaction to both physician and patient.

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Relationship of Stress to Autonomic Lability

Studies in psychosomatics have shown that functional disorders often are a result of the patient's inability to adjust to emotionally stressful situations (stressor factors).

Nervous tension and chronic anxiety, discharged through a labile Autonomic Nervous System, can cause somatic disturbance. [1,2] Such states may involve any one of the organ systems or several at one time. [1,3] The outline below is designed to relate gastrointestinal and cardiovascular symptomatology to the exaggerated response of the autonomic nervous system.

	Physiologic Effects of Autonomic Discharge	
	Sympathetic	Parasympathetic
Gastro-intestinal System	Hypomotility Intestinal Atony Hyposecretion Reduced salivation	Hypermotility Gastrointestinal spasm Hypersecretion
Cardio-vascular System	Rapid heart rate Peripheral vaso-constriction	Slow heart rate Vasodilatation
Functional Manifesta-tions	Palpitation Tachycardia Elevated blood pressure Dry mouth and throat	Heartburn Nausea-vomiting Low blood pressure Colonic spasm

The data here tabulated is from references [3,4,5,6,7], given below.

When the clinical picture is suggestive of functional disorder, the diagnosis is supported by the presence of the following indications of autonomic lability:

Variable Blood Pressure
Body Temperature Variations
Changing pulse rate
Deviations in B. M. R.
Exaggerated Cold Pressure Reflex
Oculo-Cardiac Reflex Abnormalities
Glucose Tolerance Alterations

Therapy in these cases is directed toward: 1) relieving the somatic disturbance to prepare the patient for psychotherapy*; 2) guidance in making adjustment to stressful situations and correction of unhealthy attitudes.

*Drug treatment using adrenergic and cholinergic blocking agents in conjunction with sedatives. [8,9,10].

1. Ebaugh, F.: Postgrad. Med. *4:* 208, 1948. 2. Wilbur, D.: J.A.M.A. *141:* 1199, 1949. 3. Williams, E. and Carmichael, C.: J. Nat'l. Med. Assoc. *42:* 32, 1950. 4. Goodman, L. and Gilman, A.: The Pharmacological Basis of Therapeutics, The Macmillan Co., 1941. 5. Katz, L. et al: Ann. Int. Med. *27:* 261, 1947. 6. Weiss, E. et al: Am. J. Psychiat. *107:* 264, 1950. 7. Alvarez, W.: Chicago Med. Soc. Bulletin, 581, 1950. 8. Rakoff, A.: A Course in Practical Therapeutics, Williams and Wilkins, 1948. 9. Karnosh, L. and Zucker, E.: A Handbook of Psychiatry. C. V. Mosby Co., 1945. 10. Harris, L.: Canad. M.A.J. *58:* 251, 1948.

Sandoz Pharmaceuticals

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(Continued from Page 424)

1. International Foundation for Infantile Paralysis, Copenhagen, September 3-7, 1951.
2. World Confederation for Physical Therapy, Copenhagen, September 7-8, 1951.
3. International Society for the Welfare of Cripples, Stockholm, September 10-14, 1951.

In order that the Swedish Committee on Arrangements may have an estimate of the number of hotel rooms to reserve for individuals attending the Fifth General Assembly, we have been asked to submit an estimate of the number of United States Committee members likely to attend.

For additional information, write Dr. Louis H. Bauer, The World Medical Association, 2 East 103rd Street, New York 29, New York.

PAROTID GLAND TUMORS AND THEIR SURGICAL MANAGEMENT

(Continued from Page 401)

2. Several common misconceptions concerning the management of tumors of the parotid gland are considered. The practices of waiting for tumors to become large, of performing inadequate surgery because of fear of injury to the facial nerve and the unjustified use of roentgenotherapy are particularly condemned.

3. The techniques of subtotal parotidectomy, (superficial lobectomy) and parotidectomy, with the patient under general anesthesia, are described. Emphasis is placed first on removal of sufficient tissue; preservation of the facial nerve is held to be of great importance, but secondary in importance to complete excision of the neoplasm.

4. Methods of management of temporary or permanent facial palsy are outlined.

References

1. Bailey, H.: Brit. J. Surg., 28:337, 1941.
2. Bassoe, P.: M. Clin. North America, 16:405, 1932.
3. Brown, J. B.: Ann. Surg., 109:1016, 1939.
4. Dahlberg, A. A.: J.A.M.A., 124:503, 1944.
5. Foot, N. C.: Pathology in Surgery. Philadelphia: J. B. Lippincott Company, 1945.
6. Janes, R. M.: S. Clin. North America, 23:1429, 1943.
7. Kennon, R.: Brit. J. Surg., 9:76, 1922.
8. Lodge, W. O.: Brit. J. Surg., 17:422, 1929.
9. Marshall, S. F., and Miles, G. O.: S. Clin. North America, 27:501, 1947.
10. McCormack, L. J.; Cauldwell, E. W., and Anson, B. J.: Surg., Gynec. & Obst., 80:620, 1945.
11. McFarland, J.: Surg., Gynec. & Obst., 76:23, 1943; 63:457, 1936; 57:104, 1933. Am. J. M. Sc., 172: 804, 1926.
12. Sheehan, J. E.: Surgery, 27:122, 1950.

Say you saw it in the Journal of the Michigan State Medical Society

CAMP ANATOMICAL SUPPORTS for ORTHOPEDIC CONDITIONS



Whether it be relief from lesser degrees of postural or occupational strain, or as an aid in treatment following injury or operation, the Camp group of scientifically designed orthopedic supports for men, women and children will be found "comprehensive." Sacroiliac, Lumbosacral and Dorsolumbar supports may be prescribed for all types of build. The Camp system of construction fits the support accurately and firmly about the major part of the bony pelvis as a base for support. The unique system of adjustment permits the maximum in comfort. Physicians may rely on the Camp-trained fitter for the precise execution of all instructions.

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New: highly-soluble riboflavin

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The development of this new highly-soluble riboflavin compound permits the preparation of a concentrated solution without requiring the use of undesirable solvents. Hyflavin injection is ready for immediate administration by withdrawal directly into the syringe. This obviates the inconvenience of preparing a riboflavin injection solution from the dry powder. Hyflavin is used where rapid replacement of riboflavin is indicated or where there is interference with its intake, absorption or utilization.

Supplied: 10 mg. riboflavin per cc., 1 cc. ampules and 10 cc. multiple-dose vials.

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WHAT IS A PRACTICAL CANCER DETECTION PROGRAM?

(Continued from Page 390)

2. No universal specific diagnostic test for cancer has yet been found reliable. Some proposed tests give promise of value on further refinement but in their present state are unsafe as definitive diagnostic procedures.

3. Wherever possible, findings of health examination programs should be pooled to avoid costs and labor of duplicate examinations in the same field.

4. Pending development of a specific diagnostic test for cancer, examination of readily accessible sites by the physician in his own office during office hours will provide this service to the largest number of people and will result in discovery of a significant number of cancers and the saving of many lives. It will also increase the interest of both physicians and laity in the value of such examinations as case-finding procedures.

THE REGISTER IN THE MICHIGAN CANCER PROGRAM

(Continued from Page 406)

agencies are made available to the physician and his patient.

5. The Register assures follow-up and continuity of care for patients.

6. Analysis and interpretation of data direct the planning of educational programs by pointing out the strengths, weaknesses and needs of the physician and public.

7. The Cancer Register should be established and maintained at the operating level of the program.

8. Community requirements for medical facilities can be determined.

9. The Register enables epidemiological studies revealing carcinogens indicating possible preventive measures.

10. In accordance with provisions of Act 146, P.A. 1919, Cancer was declared reportable in 1947 by the Michigan Department of Health, providing the necessary legal basis for the reporting of Cancer and the establishment and maintenance of the Cancer Register.

Say you saw it in the Journal of the Michigan State Medical Society



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(Continued from Page 430)

neurology is incomplete without an incorporation of anatomical and physiological changes as pertain to any particular disease. The author's presentation is ably done, both in script and illustrations. He has included all known methods of testing as well as special testing techniques. He has emphasized muscle and nerve testing, a phase of examination that is usually too scant in volume on this subject. He has not neglected the differential study of diseases.

This book can be unqualifiedly recommended to the student and clinician. The student will be able to conserve a great amount of time in his studies; it will be a treatise for the clinician, and the research man will appreciate the extensive reference list.

G.K.S.

NASAL SINUSES. An Anatomic and Clinical Consideration by O. E. Van Alyea, M.D., Associate Clinical Professor, Department of Laryngology, Rhinology and Otology, University of Illinois College of Medicine, Chicago. Second Edition. Baltimore: The Williams and Wilkins Company, 1951. Price $9.00.

Dr. Van Alyea in his second edition found it necessary to revise extensively due to the great strides made in physiological knowledge and the newer antibiotic and other methods of treatment. We are particularly pleased with the apparent conservatism of the author in his treatment of sinus disease. He believes great success can, and is being obtained by the simpler

(Continued on Page 434)

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3 to 5 years	8 to 14 weeks
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8 to 12 years	12 to 20 weeks

These are approximations based on observation; large children grow more rapidly and slight children more slowly. Width changes seem to coincide with changes in weight. Good shoes properly fitted allow for growth but too much allowance is uncomfortable and may interfere with the child's progress. It is the responsibility of the parent to guard against short shoes. Check shoe size frequently.
Remember, the "little toe" is important, too!

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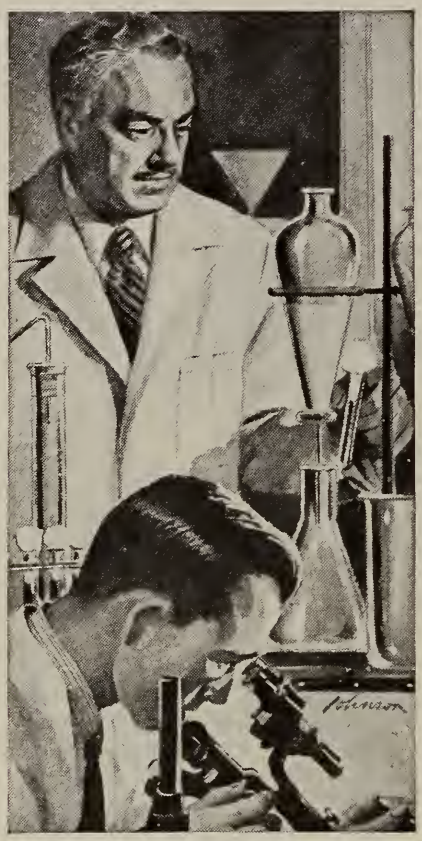
Short Shoes Can Start Serious Foot Troubles

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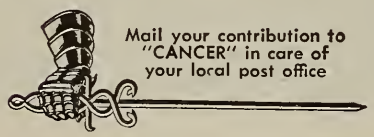
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(Continued from Page 432)

and more conservative procedures. He says the majority of persons still doing radical sinus surgery are refusing to consider or believe the results that can be obtained by simple window and drainage procedures. The author's style is clear, and pleasing, being easy to follow, and a pleasure to read. We believe this book should be studied by all rhinologists, who will then make their own decisions.

PHYSICIAN'S HANDBOOK. By Marcus A. Krupp, M.D., Assistant Clinical Professor of Medicine, Stanford University School of Medicine, Director, Clinical Pathology Veterans Administration Hospital, San Francisco; Norman J. Sweet, M.D., Assistant Professor of Medicine, University of California School of Medicine, San Francisco; Ernest Jawetz, Ph.D., M.D., Associate Professor of Bacteriology and Lecturer in Medicine and Pediatrics, University of California School of Medicine, San Francisco; Charles D. Armstrong, M.D., Clinical Instructor in Medicine, Stanford University School of Medicine. Sixth Edition. Palo Alto, California: University Medical Publishers, 1950. Price $2.50.

This is a compact book, with round corners, easily going into a pocket, and readily available. The contents are divided into thirty chapters, from outlines of history taking, Nervous System examinations, Cardiorespiratory examinations, electrocardiology, Biologic therapy, and every field in the body, ending with pathological examinations, and simplified laboratory procedures, and an appendix giving many formulae, tables, et cetera. It is a very handy volume, and will replace many of the larger unwieldy tomes.

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MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of March 15, 1951

Forty-seven items were considered by the Executive Committee of The Council at its March 15 meeting. Chief in importance were:

- Monthly financial reports were presented and approved. Bills payable were inspected and authorized to be paid.
- Purchase of property at 606 Townsend Ave., Lansing, for MSMS Executive Offices: the Executive Committee of the Council authorized cashing of necessary bonds to consummate this transaction, after all legal documents have been approved by the MSMS Legal Counsel.
- Possibility of reactivation of EMIC Program. T. A. Hendricks of the AMA Council on Medical Service invited attention to this matter; the program is desired by the American Legion and also by the UAW-CIO President who favors its activation through Blue Cross-Blue Shield.
- Legal Counsel J. Joseph Herbert reported on (a) Grand View Hospital in Ironwood and attempts of chiropractor to practice therein; (b) Bill in Michigan Legislature to transfer maternity inspections from State Welfare Department to State Health Department; (c) Proposed amendment to Social Welfare Act to permit Welfare Department to enter into contracts for medical services to be rendered to recipients, with payments direct to contractors.
- Committee reports. The following Committee reports were given consideration: (a) Mental Hygiene Committee, meeting of January 25; (b) Liaison Committee with UAW-CIO, meeting of February 13; (c) Special Committee on proposed Tuberculosis Bill, meeting of March 14; (d) Committee on Improvement of Nursing Service, meeting of February 19; (e) Permanent Conference Committee, meeting of February 21; (f) Meeting of Ubiquitous Hosts for 1951 Michigan Postgraduate Clinical Institute, meeting of March 2; (g) Legislative Committee, meeting of March 8; (h) Report on AMA Rural Health Conference held in Memphis, Feb. 23-24—by John R. Rodger, M.D., Bellaire; (i) Report on Associated State Postgraduate Committee meeting, held in Chicago on February 4 by John M. Sheldon, M.D., Ann Arbor.
- A report on the 1950 accomplishments of the Michigan Rheumatic Fever Control Program was presented by Co-ordinator Leon DeVel, M.D., Grand Rapids.
- Names of A. S. Brunk, M.D., Detroit, and D. R. Smith, M.D., Iron Mountain, and C. E. Umphrey, M.D., Detroit, were submitted to Blue Cross as nominees for two places on the MHS Board of Trustees.
- Report was presented that Michigan Hospital Service has approved the addition of a limited maternity benefit to the Community Enrollment Contract, to be made available in the near future, and a similar benefit is also being made available shortly in Blue Cross Direct Payment Contracts.
- Special recognition to Mr. C. E. Wilson and Drs. Max R. Burnell and C. D. Selby of Detroit for tangible encouragement to industrial medicine, was authorized, to be made at a meeting in Detroit in the near future.
- A letter to all MSMS members, to be signed by President C. E. Umphrey, M.D., re support for Wayne University College of Medicine Science Building project now before the Michigan Legislature, was approved and authorized to be sent.
- Letter urging re-appointment of A. E. Heustis, M.D., as State Health Commissioner, was approved and authorized to be sent Governor G. Mennen Williams.
- A resolution was authorized to be drafted, for presentation to the AMA House of Delegates in June, 1951, incorporating the suggestions of Editor Wilfrid Haughey, M.D., re "Short Lived Incomes of Doctors," seeking to amend existing pension trust provisions under federal tax laws.
- Report of Special Committee to Study Medical Practice Act, meeting of March 15, was presented. This included twenty recommended amendments to Act 237 of the Public Acts of

(Continued on Page 456)



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(Continued from Page 454)

1899 as amended. The report as a whole was approved by the Executive Committee, with thanks to the Special Committee for its work designated as "a mile stone." Chairman F. L. Troost, M.D., discussed the need for securing the approval of this proposal from the individual members of the Michigan State Board of Registration in Medicine; the final bill is to be submitted to the MSMS Executive Committee of The Council, after drafting, prior to introduction into the Michigan Legislature.

- The question of Joseph F. Beer, M.D., of St. Clair, concerning the new city hospital at Marine City, and the right of various healers to practice therein, was thoroughly discussed and referred to the Secretary.
- Report on Invitational Membership Campaign's progress was presented by the Public Relations Counsel, who also reported on the MSMS motion picture programs and the television program "It's Your Life."
- Reports of the so-called "Little Hoover Commision" of Michigan, re medical phases of government, were studied.

COURSES IN MEDICAL ECONOMICS

University of Michigan Medical School

April 28—11:00 a.m., *"Rural Medical Practice"*
JOHN R. RODGER, M.D., Bellaire
Chairman, Rural Health Committee, MSMS; Member, Advisory Committee to State Hospital Survey and Construction Agency.

May 5—11:00 a.m., *"Medical Insurance Plans"*
WILFRID HAUGHEY, M.D., Battle Creek
Editor, JOURNAL MSMS; Past President, MSMS; Board member, Michigan Medical Service and Michigan Hospital Service.

May 12—11:00 a.m., *"Medical Public Relations"*
R. WALLACE TEED, M.D., Ann Arbor
Member, Public Relations Committee, Legislative Committee, Medical Mediations, and Committee on Radio, MSMS.

May 19—11:00 a.m., *"Opportunities in Medical Practice"*
E. F. SLADEK, M.D., Traverse City
Past President, MSMS; Past President, National Conference on Medical Service; Past President, Associated State Postgraduate Committees.

Wayne University College of Medicine

May 18—11:00 a.m., *"Opportunities in Medical Practice"*
E. F. SLADEK, M.D.

May 25—11:00 a.m., *"Rural Medical Practice"*
JOHN R. RODGER, M.D.

June 1—11:00 a.m., *"Medical Public Relations"*
L. FERNALD FOSTER, M.D., Bay City

June 8—11:00 a.m., *"Medical Insurance Plans"*
WILFRID HAUGHEY, M.D.

CHILD PSYCHIATRY

A postgraduate school in Child Psychiatry is planned for June 25 through June 29, 1951. This will be intended to answer the needs of the general practitioner and pediatrician, rather than those of the specialist in child psychiatry. It will be an intensive course with four instructors who are prominent men in the field, including Ralph Rabinovitch, M.D., Director, Children's Division, Neuropsychiatric Institute, University of Michigan; Samuel W. Hartwell, M.D., Assistant Director, Michigan Department of Mental Health; Paul H. Jordan, M.D., Director, Flint Child Guidance Clinic.

The fee for the five-day course is $35.00, payable upon registration. The course is being sponsored by the Kalamazoo Child Guidance Clinic and the State Department of Mental Health, and will be held at Kalamazoo College. Total enrollment is limited to forty physicians. Twenty registrations are open at the present time. Quarters will be provided for a reasonable rate at Kalamazoo College.

Address communications to Ray O. Creager, M.D., Kalamazoo Child Guidance Clinic, 214 Pratt Building, Kalamazoo, Michigan.

PATERNALISM

As we observe the growing paternalism of our government, we wonder what the finale will be. We are prompted to quote a clipping sent us by Lew Buehler when he was in Florida:

"Father, must I go to work?"
"No, my lucky son.
We're living now on Easy Street
On dough from Washington.

We've left it up to Uncle Sam,
So don't get exercised
Nobody has to give a damn,
We've all been subsidized."

"But if Uncle Sam treats all so well,
And feeds us milk and honey.
Please Daddy, tell me what the——
He's going to use for money?"

"Don't worry, Bub, there's not a hitch
In this here noble plan.
He simply soaks the filthy rich,
And helps the common man."

"But, father, won't there come a time
When they run out of cash,
And we have left them not a dime,
Won't things all go to smash?"

"My faith in you is shrinking, son,
You nosey little brat,
You do too darn much thinking, son,
To be a Democrat."

—*Kiwanis Club Letter*, Battle Creek, March 22, 1951.

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Second Annual Heart Day Offers New Hope for Hearts

"The Michigan Heart Association will continue its ceaseless efforts in the constant search for the solution to the perplexing problems of diseases of the heart and circulatory system," was the reassuring note sounded by Douglas Donald, M.D., Detroit, who was installed as President of the Michigan Heart Association at its Second Annual Meeting on Saturday, March 17, 1951.

"Heart Day," which was held again this year in conjunction with the Michigan Postgraduate Clinical Institute, featured the presentation of scientific papers on current advancements in the field of heart research.

Paul S. Barker, M.D., retiring President of the Michigan Heart Association, delivered the address of welcome and urged continued support of the Heart Association "which will make possible for the future greater accomplishments in medical science and greater service to the people." As his last official act as President of the Michigan Heart Association, Dr. Barker presented Warren B. Cooksey, M.D., first President of the Association, with a Past President's Key in recognition of his valuable service to the Michigan Heart Association.

F. Janney Smith, M.D., President-Elect of the Michigan Heart Association and Physician-in charge, Cardio-Respiratory Division, Henry Ford Hospital, reported to the Heart Day audience on a controlled study of the effect of anticoagulants on patients suffering from coronary occlusion. This study involved the use of Dicumarol, alternating with a newer anticoagulant which may be given orally, Tromexan; and a comparative study between the two parenteral anticoagulants, Heparin and Peritol.

"The use of anticoagulant therapy in coronary occlusion and myocardial infarction was found to have a distinctly favorable effect in decreasing the frequency of intravascular clotting and in lowering the mortality rate," Dr. Smith said. "Therefore, it is our belief that anticoagulants should be administered to every patient suffering from acute coronary thrombosis unless a definite contraindication exists."

"Emphasis is placed on the need for the careful control and handling of anticoagulant therapy by a competent and conscientious internist, or by a team of physicians skilled in this type of work, because if the matter is not carefully handled, the results will not be therapeutically satisfactory, and there will be danger of hemorrhage."



Warren B. Cooksey, M.D. (*left*) and Paul S. Barker, M.D. (*right*) congratulate Douglas Donald, M.D., (*center*) as he takes office as President of the Michigan Heart Association at the Second Annual Heart Day, Saturday, March 17, 1951.

Harry E. Ungerleider, M.D., Medical Director of Research, Equitable Life Assurance Society, informed the Doctors of Medicine of the latest developments concerning the relationship between certain fatty substances in the blood stream of man and arteriosclerotic processes which have been revealed by studies in the ultracentrifuge. Drastic curtailment of fat in the diet is the sole recommendation for the prevention of arteriosclerosis which appears to have some solid foundation, Dr. Ungerleider said.

Albert Dorfman, M.D., Director of Rheumatic Fever Research for LaRabida Sanitarium and the University of Chicago, reported on the work being done with ACTH and cortisone in treating rheumatic fever patients. Dr. Dorfman pointed out that from studies performed to date, the following conclusions seem warranted:

1. ACTH and cortisone are potent agents for the repression of the manifestations of rheumatic fever.

(Continued on Page 460)

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- ★ Pays Benefits for Septic Infections.
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(Continued from Page 458)

2. There is evidence that these agents repress the inflammatory lesions in the heart.

3. As yet there is insufficient evidence to decide whether these agents alter the natural course of the disease and prevent the structural deformities which are the frequent consequence of acute rheumatic fever.



Michigan Heart Association exhibit at Michigan Postgraduate Clinical Institute and Second Annual Heart Day, March 14-17, 1951.

A very attractive and effective exhibit, including a complete life-size "heart" kitchen, was displayed by the Michigan Heart Association at the Michigan Postgraduate Clinical Institute and also at the Annual Heart Day Meeting. All equipment and furniture for the kitchen was furnished by the J. L. Hudson Company, Detroit.

The annual meeting of the Board of Trustees and the membership of the Michigan Heart Association followed the scientific sessions, at which time Dr. Donald took office as President, and the following officers were elected for 1951: President-Elect, F. Janney Smith, M.D., Detroit; Vice Presidents, Frank Van Schoick, M.D., Jackson; Mrs. Hugh Wilson, Ann Arbor; Carleton Dean, M.D., Lansing; Secretary, L. Fernald Foster, M.D., Bay City; Treasurer, Charles T. Fisher, Jr., Detroit. John G. Bielawski, M.D., Detroit, was appointed Executive Secretary of the Association.

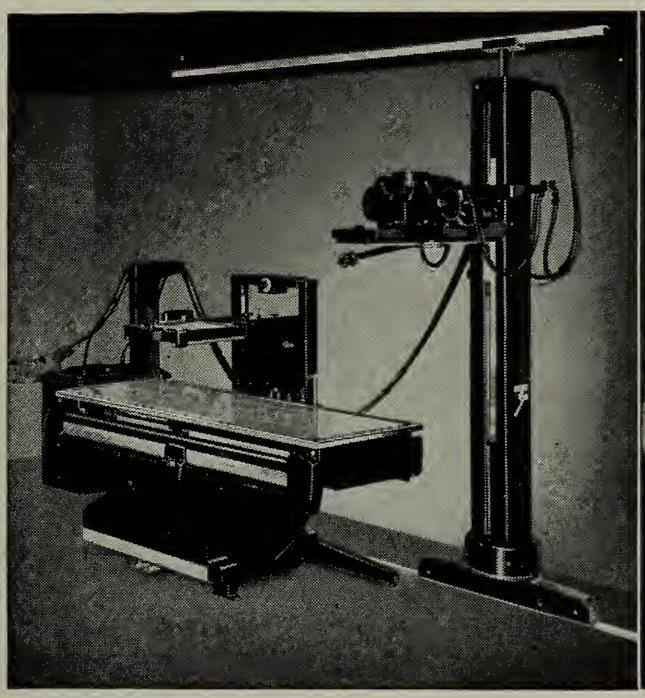
C. E. Wilson was re-elected Chairman of the Board of Trustees for the third consecutive year, and the following members were elected to the Board with terms to expire in 1954; C. F. Kettering, Detroit; Endicott R. Lovell, Calumet; Mrs. Wm. MacGregor, Detroit; C. J. Reece, Muskegon; Emmet Richards, Alpena; Carleton Dean, M.D., Lansing; Leon DeVel, M.D., Grand Rapids; F. D. Dodrill, M.D., Detroit; Douglas Donald, M.D., Detroit; L. Fernald Foster, M.D., Bay City; Frank X. Martell, Detroit; Edward Cote, Detroit; Mrs. Fred Miner, Flint; J. William Hagerty, Detroit.

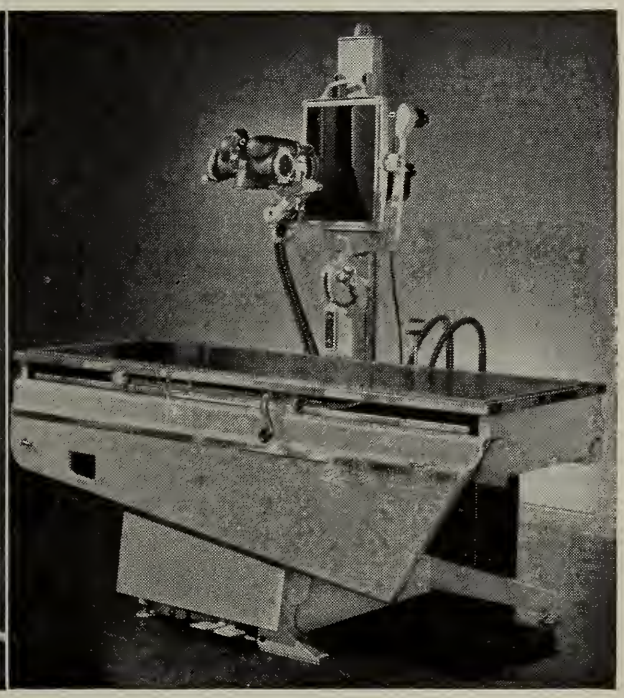
The following members were also elected at the Annual Heart Association as delegates from the Michigan Heart Association to the American Heart Association in 1951; F. D. Dodrill, M.D., Detroit; Douglas Donald, M.D., Detroit; F. Janney Smith, M.D., Detroit; Paul Barker, M.D., Ann Arbor; John G. Bielwaski, M.D., Detroit; Warren B. Cooksey, M.D., Detroit; Cecil Corley, M.D., Jackson; Carleton Dean, M.D., Lansing; Leon DeVel,

(Continued on Page 462)

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(Continued from Page 460)

M.D., Grand Rapids; and Mrs. Hugh E. Wilson, Ann Arbor.

151 M.D.s Present at Heart Conference

Among the 151 Doctors of Medicine who registered at the Second Annual Michigan Heart Day, three foreign countries (Australia, Japan and Ontario) and from five states (Michigan, Ohio, Illinois, Indiana and New York) were represented:

H. B. Appleman, M.D., Detroit; E. C. Armstrong, M.D., London, Ontario, Canada; R. R. Barber, M.D., Plymouth; Paul S. Barker, M.D., Ann Arbor; R. C. Barlow, M.D., Ann Arbor; J. M. Bauer, M.D., Ann Arbor; T. I. Bauer, M.D., Lansing; J. C. Benson, Jr., M.D., Flint; J. G. Bielwaski, M.D., Detroit; T. H. Bottomley, M.D., Port Huron; R. E. Bowsher, M.D., Midland; W. J. Briggs, M.D., Detroit; G. T. Brown, M.D., Detroit; B. M. Bullington, M.D., Saginaw; E. T. Calhoun, M.D., Pontiac; N. T. Caputo, M.D., Detroit; H. W. Carlson, M.D., Detroit; E. K. Carmichael, M.D., Detroit; William Cayce, M.D., Grand Rapids; M. S. Chambers, M.D., Flint; S. E. Chapin, M.D., Dearborn; C. N. Clarke, M.D., Detroit; E. E. Congdon, M.D., Flint; H. C. Conn, M.D., Detroit; E. R. Conrad, M.D., Detroit; W. B. Cooksey, M.D., Detroit; W. F. Cooper, M.D., Melbourne, Australia; Campbell Cutler, M.D., Flint; R. H. Darpin, M.D., Detroit; Carleton Dean, M.D., Lansing; R. H. Denham, M.D., Detroit; H. E. DePree, M.D., Kalamazoo; Leon DeVel, M.D., Grand Rapids; F. D. Dodrill, M.D., Detroit; Douglas Donald, M.., Detroit; Albert Dorfman, M.D., Chicago, Illinois; E. H. Drake, M.D., Detroit; E. J. Dudzinski, M.D., New Baltimore; E. W. Durham, M.D., Dearborn; I. D. Fagin, M.D., Detroit; A. F. Fath, M.D., Kalamazoo; R. L. Fellers, M.D., Detroit; O. O. Fisher, M.D., Detroit; K. G. Foster, M.D., Detroit; L. Fernald Foster, M.D., Bay City; M. R. French, M.D., Coldwater; J. H. Fyvie, M.D., Manistique; D. P. Gage, M.D., Saginaw; R. A. Gerisch, M.D., Detroit; H. I. Ginsberg, M.D., Detroit; Fred Girton, M.D., Detroit; William Goldberg, M.D., London, Ontario, Canada; B. J. Goldman, M.D., Mt. Clemens; C. J. Golinvaux, M.D., Monroe; B. E. Goodrich, M.D., Detroit; R. P. Gorning, M.D., Detroit; R. P. Gripe, M.D., Detroit; R. H. Hamburg, M.D., Detroit; A. C. Hamburger, M.D., Detroit; Kuno Hammerberg, M.D., Clare; E. A. Hasty, M.D., West Branch; L. Heavner, M.D., Grosse Pointe; M. S. Hecht, M.D., Detroit; R. F. Helzerman, M.D., Tecumseh; J. W. Hill, M.D., Grand Rapids; L. J. Hirschman, M.D., Traverse City; S. W. Hoobler, M.D., Ann Arbor; S. J. Hyman, M.D., Inkster; F. J. Jarsen, M.D., Detroit; E. B. Jewell, M.D., Logansport, Indiana; T. G. Kabza, M.D., Ann Arbor; H. J. Kerr, M. D., Muskegon; R. J. Kokowicz, M.D., Detroit; A. H. Lange, M.D., Detroit; S. P. L'Esperance, M.D., Detroit; Adolf W. Lowe, M.D., Detroit; E. D. Maire, M.D., Grosse Pointe; M. D. Massullo, M.D., Youngstown, Ohio; D. G. May, M.D., Kalamazoo; M. S. Maynard, M.D., Grand Rapids; R. E. McBroom, M.D., Detroit; H. J. McLane, M.D., Detroit; T. P. McWilliams, Jr., M.D., Ann Arbor; C. P. Mehas, M.D., Pontiac; Herbert Meyer, M.D., Detroit; Walter Mikulasehek, M.D., Detroit; C. P. Mott, M.D., Detroit; A. P. Murphy, M.D., Saginaw; J. M. Murphy, M.D., Detroit; S. G. Murphy, M.D., Detroit; P. H. Muske, M.D., Detroit; John W. Nagle, M.D., Wyandotte; J. W. Nunn, M.D., Highland Park; D. C. Overy, M.D., Ann Arbor; T. S. Painter, Jr., M.D., Ann Arbor; J. R. Pedden, M.D., Grand Rapids; C. J. Poppen, M.D., Lansing; L. I. Powers, M.D., Muskegon; F. W. Prather, M.D., Milford; A. E. Price, M.D., Detroit; A. H. Price, M.D., Detroit; L. Paul Ralph, M.D., Grand Rapids; J. A. Ramsey, M.D., Alpena; W. H. Reeder, M.D., Detroit; R. M. Rees, M.D., Ann Arbor; R. E. Reichert, M.D., Ann Arbor; H. H. Riecker, M.D., Ann Arbor; J. V. Roberts, M.D., Hamilton, Ontario, Canada; L. H. Roberts, M.D., London, Ontario, Canada; H. C. Robinson, M.D., Grand Rapids; J. S. Rozan, M.D., Lansing; M. J. Rueger, M.D., Detroit; H. J. St. Amour, M.D., Detroit; C. D. Selby, M.D., Detroit; E. M. Shafarman, M.D., Detroit; H. C. Shafer, M.D., Bay City; Milton Shaw, M.D., Lansing; R. E. Shipley, M.D., Detroit; Max Silverman, M.D., Dearborn; F. J. Smith, M.D., Detroit; H. V. Sparks, M.D., Flint; S. A. Stealy, M.D., Grayling; M. J. Steinhardt, M.D., Detroit; A. M. Stern, M.D., Ann Arbor; R. M. Stow, M.D., Ann Arbor; G. C. Stucky, M.D., Charlotte; D. I. Sugar, M.D., Detroit; G. D. Sutton, M.D., Flint; F. C. Swartz. M.D., Lansing; R. V. Taylor, M.D., Jackson; Myer Teitelbaum, M.D., Detroit; T. G. Todoroff, M.D., Detroit; W. E. Truax, M.D., Pontiac; R. V. Tubbs, M.D, Blissfield; H. E. Ungerleider, M.D., New York, New York; Kazuko Uno, M.D., Detroit and Japan; E. G. Upjohn, M.D., Kalamazoo; Frank Van Schoick, M.D., Jackson; J. R. Venema, M.D., Grand Rapids; F. Walter, M.D., Detroit; David Waxman, M.D., Detroit; R. F. Weyher, M.D., Detroit; W. G. White, M.D., Muskegon; S. C. Wiersma, M.D., Muskegon; J. M. Wilkinson, M.D., Detroit.

H.R. 3511—FEDERAL AID TO MEDICAL EDUCATION

To provide for education in the field of medicine through establishment of two Federal medical schools, and for other purposes. Referred to the Committee on Education and Labor.

Comment: Bill creates a corporation within the Federal Security Agency with the name "Medical College of the United States." A Medical College Commission of seven members would be appointed by the Federal Security Administrator on recommendation of Surgeon General of the Public Health Service—members to be leading authorities in medical education or public health and no more than four affiliated with the same political party. The Commission would select sites for two medical schools to accommodate 400 students each, with a teaching hospital of approximately 700 beds in connection with each. Fifty thousand dollars is authorized for a site survey, $2,000,000 for acquisition of land, and $20,000,000 for construction of schools, hospitals and dormitories. A permanent appropriation of $3,000,000 annually would be authorized for costs of administration. Management of the two schools would be vested in a Board of Regents, consisting of the Surgeon General, Public Health Service; Commissioner of Education; Chief Medical Officer, Department of Defense; Chief Medical Officer of VA, ex officio; and six other members to be appointed by the Administrator (salaries of $15,000 annually). Three of these six would be members of the teaching profession. The Regents would appoint for each school a president, comptroller, dean, and hospital director. Students would be selected on the basis of competitive examinations and their willingness to serve upon completion of their education for a period equal to the period of schooling in either the Department of Defense, VA, Public Health Service, or some other medical agency of the United States or in an area suffering a severe shortage of physicians, selected by the Administrator. Failing to so serve he would be subject to payment of the cost of his education, not to exceed $750 per year.

Today the group of disease problems associated with adult life has become the dominant problem of public health. Of this disease group, cancer has assumed a position of significance heretofore overshadowed and unrecognized in the traditional fields of public health activities.

the Ca:P ratio is the key

A uniformly high calcium-phosphorus ratio . . . adjusted in BREMIL to a guaranteed minimum of 1½ parts calcium to 1 part phosphorus . . . this is the nutritional key to the prevention of hypertonicity, hyperirritability, and other tetanic symptoms in infants.

Gardner, Butler, et al., state: "Relative to human milk, cow's milk has a low Ca:P ratio . . ."[1] Nesbit writes: "Tetany of the newborn is now recognized as a definite entity . . . and often accompanied by an increased phosphorus and lowered blood calcium."[2] Dodd comments that "hypocalcemia tetany in the newborn may be of serious consequence."[3]

BREMIL . . . newest product of Borden research . . . is a completely modified milk in which nutritionally essential elements of cow's milk have been adjusted in order to supply the nutritional requirements of infants deprived of human milk. BREMIL is therefore a human milk replacement to which physicians can turn with confidence for uninterrupted good results.

uman milk	Bremil (reconstituted)	
034%	0.078%	
5 mg.	768 mg.	per qt.
15%	.052%	
8 mg.	512 mg.	per qt.
41%	.078%	
0 mg.	750 mg.	per qt.
0018%	.00082%	
mg.	8 mg.	per qt.

But an adjusted Ca:P ratio is not the only attribute that makes Bremil new and unique

BREMIL has the fatty acid and amino acid patterns of human milk . . . the same carbohydrate (lactose) . . . vitamin adjustments to meet the recommended standards of infant nutrition[4] . . . a soft, flocculent curd of small particle size comparable to human milk . . . complete solubility.

Just as with human milk you can start the infant on BREMIL the day it is born. Standard dilution is 1 level tablespoonful and 2 fl. oz. water, although BREMIL can be either concentrated or diluted. Each level tablespoonful BREMIL powder supplies 44 calories. BREMIL is easy to prepare and can be mixed for a single feeding or a 24-hour period.

Complete information and a trial supply may be obtained upon request. BREMIL is available in drugstores in 1 lb. cans.

1. Gardner, L. I., Butler, A. M., et al.: *Pediatrics* 5:228, 1950.
2. Nesbit, H. T.: *Texas State J. M.* 38:551, 1943.
3. Dodd, K., and Rapoport, S.: *Am. J. Dis. Children* 78:537, 1949.
4. Recommended Daily Dietary Allowances, Revised 1948, Food and Nutrition Board, National Research Council.

le, palatable, easy to prepare **Bremil**® *powdered infant food*

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Medical Education -- Your Responsibility, Too

Taking the initiative in raising financial aid for the nation's medical schools, the American Medical Association's Board of Trustees last December announced the appropriation of $500,000 as the nucleus of a fund to be known as the American Medical Education Foundation. This fund will be distributed among the seventy-nine approved medical schools in the country with "no strings attached." Because the American Medical Association has offered to underwrite all costs of the Foundation, every cent contributed will go directly to aid medical schools.

The fast-growing fund—augmented daily by physicians and others sincerely interested in perpetuating America's medical care system—may forever end the arguments that federal funds are the medical schools' only salvation.

Since the end of World War II, rising costs, decreased income from endowments, and reduced contributions from benefactors have made it difficult for medical schools to make ends meet. It has become increasingly harder to replace old equipment, expand or modernize existing facilities, maintain libraries, and provide attractive salaries to hold competent teachers.

America's medical schools are now operating at or near capacity—enrollments in 1950 reached an all-time high, increasing 6 per cent over the previous year. Michigan, too, reflects the upward trend in enrollments. At the University of Michigan Medical School, Ann Arbor, enrollments climbed from 493 in 1949-50 to 523 in 1951. At Wayne University Medical School, Detroit, enrollments for 1950 and 1951 remained constant at 255. To increase enrollments further, U. S. medical schools must either expand facilities or decrease standards of medical education.

For the past half-century, the AMA has worked unceasingly to raise medical education standards. Improved medical education accounts in a large measure for the tremendous advances in medical care and health standards in the last two decades. Even now the AMA through its Council on Medical Education and Hospitals, spends a quarter of a million dollars annually to advance medical education.

Our medical schools need additional financial support to continue to provide the American people with more and better physicians and to assure continued advancement of the nation's health.

Michigan medical leaders, well aware of the crucial situation confronting the state's own medical schools, in 1950 passed resolutions favoring "any reasonable means to increase the number of medical students graduated" and continued increased efforts to "gain further funds from the Michigan legislature and from the people of the state." The Society worked successfully with Wayne University to secure from the legislature a grant to develop plans for a Medical Science building, and to obtain a grant for a Medical Center building for the University of Michigan.

The AMA opposes the federal aid to medical education bills which are now before Congress. In their present form, these bills will result in federal control of medical education in the United States. It is true, however, that medical schools need financial assistance for construction of new facilities and renovation of existing physical plants. The Association, therefore, has suggested legislation similar to the Hill-Burton Hospital Construction Act, which would provide a one-time federal grant with local control for such expansion and modernization.

The AMA's two-pronged program—free voluntary funds for assistance in operation, and federal funds for assistance in construction—should meet the financial needs of the medical schools, while at the same time preserving their academic freedom.

Because the medical profession has traditionally taken much of the responsibility for the training of young doctors on which it depends for recruits and replacements, it must participate effectively in raising private funds for medical schools.

Every physician recognizes his debt to the medical schools with which he has been associated. Medical graduates, even though they have paid full tuition, contributed only 25 to 50 per cent of the cost of their education to the medical schools. Although many physicians have discharged this debt to society in full or in part by public and charitable activities and by donations to schools, all doctors will want to share in the responsibility of making the Foundation a success.

AMA President, Dr. E. L. Henderson, says: "We must make it clear that the profession is not indifferent to these (medical education) problems.

(Continued on Page 468)

Wyeth



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Clinical experience confirms that certain types of difficult-to-manage ulcer show a more striking and lasting response to PHOSPHALJEL therapy than to other types of medication. Palatable PHOSPHALJEL is the peptic ulcer medication of choice in the following conditions:

- Marginal or jejunal ulcer following gastrojejunostomy.[1]
- Ulcer complicated by deficiency of pancreatic secretion or by diarrhea.[1,2,3]
- Prophylactically, after peptic ulcer surgery, and during seasonal recurrence.[3]

PHOSPHALJEL quickly relieves pain and promotes healing. Excellent for oral therapy, and for intragastric drip therapy.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

1. Fauley, G. B., Freeman, S., Ivy, A. C., Atkinson, A. J., and Wigodsky, H. S.: Arch. Int. Med. 67:653, 1941.
2. Upham, R., and Chaikin, N. W.: Rev. Gastroenterol. 10:287, 1943.
3. Collins, E. N.: J. A. M. A. 127:890, 1945.

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(Continued from Page 466)

Let us face our obligation individually and collectively to provide significant financial assistance to medical schools." Dr. Henderson stressed that without strong medical schools, the future capacity of the profession itself to serve society will be in jeopardy.

To make the Foundation an effective force for the maintenance of medical education, it is suggested that each physician consider an annual contribution of $100. Contributions already received exceed this amount in many cases. But a doctor who finds a $100 contribution beyond his means can still demonstrate his support with a smaller one. Blanks for submitting contributions appear regularly in the *Journal of the American Medical Association.*

A physician who wishes to earmark his money for a specific school can do so. The Commissioner of Internal Revenue has been asked to rule that contributions will be deductible for the computation of income taxes.

It is hoped that physicians' contributions to the Foundation will stimulate other professions, industries, businesses, labor groups and private donors to contribute to the advancement of the interests of medical education and public health. To the original $500,000, appropriated from the AMA National Education Campaign, have already been added such sums as a $100,000 contribution from the California State Medical Association, and individual gifts ranging up to $1,000 and over from members of the profession and other groups.

Plans now call for the first disbursement of funds in June. If the contribution is to be an effective one, substantial funds must be forthcoming within the next few weeks. The medical schools will be entirely free to determine how they best can use their share to improve the basic training of medical students.

The Foundation is chartered as a not-for-profit corporation under the laws of Illinois to receive contributions from physicians and friends of the medical profession. It is administered by an eleven-man board of directors chosen from the AMA Board of Trustees, officers of the Association, and the Council on Medical Education and Hospitals. Dr. E. L. Henderson was unanimously elected Foundation president at the first annual meeting in February.

Plans are now being completed to form Foundation committees within the fifty-three constituent state and territorial medical societies as well as within each county and district medical society. These committees will canvass the physicians in their own areas for funds.

It's up to every doctor in the United States to toss a financial life preserver to the nation's struggling medical schools.

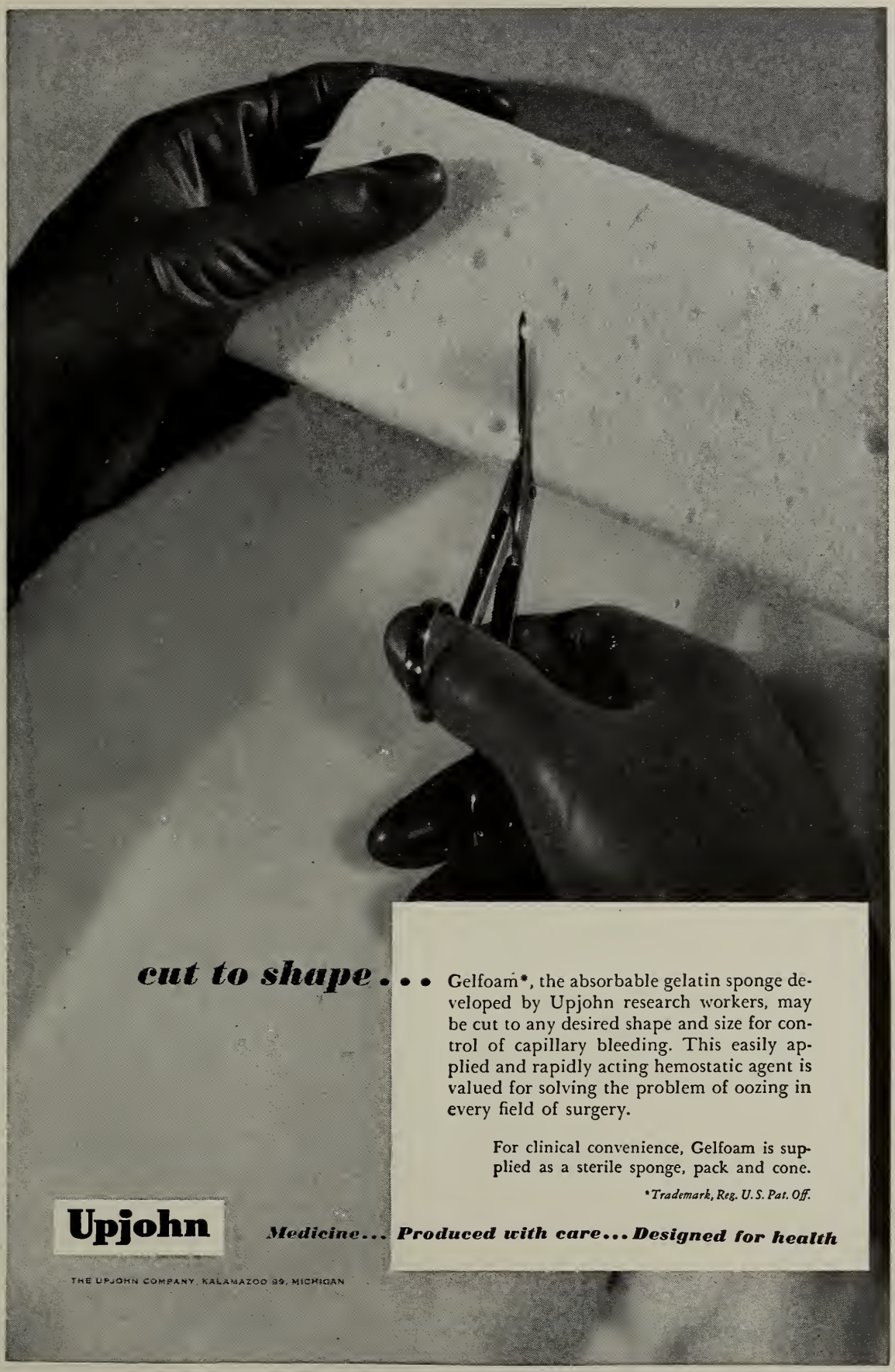
Editorial Comment

MEDICINE DID ALL RIGHT EVEN BEFORE MR. EWING

In the *American Federationist* (December, 1950, issue) Federal Security Administrator Oscar Ewing took a swing from the floor at the American Medical Association and the horrid deficiencies of American medical care. Along toward the middle of the piece Oscar bursts out with: "We have made great strides in the past fifty years in reducing the toll of disease. The average child born this year can look forward to about twenty years longer life than one born in 1900."

Whom does Oscar mean by "we"? Surely not the denizens of the nefarious system of private medical care which he has just been telling off as definitely no good! Or are "we" the politicians and bureaucrats who have been urging the country to give up a system which has prolonged human life by twenty years in exchange for something which up to now hasn't done much more than make human life not worth prolonging?

And that floating "we" isn't the only pronoun that Oscar kicks around. A little later in the article for the AFL house organ he explains that "it" has "provided Federal funds to help states and communities build new hospitals and health centers." If you think "it" refers to the taxpayer, who really does provide the fund, you're wrong. By "it" Oscar meant the Hospital Survey and Construction Act. Naturally.—Editorial, *Saturday Evening Post,* March 31, 1951.


cut to shape . . .
Gelfoam*, the absorbable gelatin sponge developed by Upjohn research workers, may be cut to any desired shape and size for control of capillary bleeding. This easily applied and rapidly acting hemostatic agent is valued for solving the problem of oozing in every field of surgery.
For clinical convenience, Gelfoam is supplied as a sterile sponge, pack and cone.
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Cancer Comment

SOME UNSOLVED PUBLIC RELATIONS PROBLEMS

Public relations are assuming increasing importance in the medical field. Many local medical societies are establishing committees to hear and adjust complaints of dissatisfied patients. These complaints most often refer to medical fees and similar economic problems and their satisfactory solution makes for continued friendly relations.

In the cancer field, there is an important unsolved problem in public relations that only the physician and his own conscience can correct. For the past fifteen years or longer, the public has been told the only hope of saving the lives of cancer patients is by periodic examination and early and adequate treatment. Many people acting on this advice go to their physicians and are met with the cynical statement that their cancer fears are groundless and jokingly told to go home and forget about cancer with no attempt at a physical examination to satisfy the patient's interest.

The tragedy of such professional attitudes is that these patients make no further effort at self-protection and, if and when cancer strikes some of them, they delay because of unwillingness to again face the ridicule of their physicians.

Although but a small percentage of the profession is open to censure on this score, physicians indulging in such tactics cause suspicion to be cast on the ability of the entire medical profession to recognize cancer and their interest in doing anything about it.

What is of greater danger is the patient who seeks medical assistance for definite symptoms and receives the wrong advice or is the victim of half-hearted attempts at diagnosis. The following questions cover experiences taken from a long list of reports where the examining physician either did not complete the examination or suggested treatment without thought of cancer. In every case the proper examination would have discovered the malignant growth.

Why do some physicians watch lumps in the breast to see what will happen?

Why do some physicians call an enlarged supraclavicular lymph node a fatty tumor without examining the breast?

Why do some physicians attribute irregular and copius vaginal bleeding to the menopause in patients of that age and make no pelvic examination?

Why do some physicians cauterize cervical "erosions" and not take biopsies of such areas?

Why do some physicians prescribe sex hormones without first making a careful pelvic examination?

Why do some physicians accept the patient's word for hemorrhoids and prescribe suppositories without a rectal examination?

Why do some physicians remove dark moles with acid and the electric cautery?

Why do some physicians treat men for urinary retention without examining the prostate?

Why do some physicians prescribe for persistent indigestion without an x-ray examination of the stomach?

Why do some physicians treat soreness around a joint, especially in a child, for rheumatism without an x-ray examination?

Why do some physicians treat a persistent cough without further examination—especially an x-ray examination of the lungs—to detect the reason for the cough?

As long as these and similar practices continue, people will be doomed to die of cancer who would have been saved if the obvious and proper diagnostic and treatment procedures had been employed.

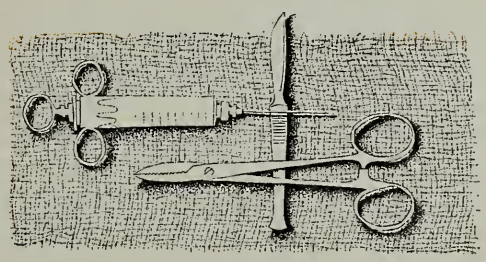
Every speaker on cancer to lay groups learns of these experiences at first hand; they are not day dreams. They constitute one of the greatest obstacles to effective lay cancer education yet encountered. Many people are seriously and intelligently interested in protecting themselves against cancer. People who are rebuffed in their desire for self-protection by means of the medical examination and those who suffer from incurable cancer because of the wrong or neglected diagnosis, do not enhance public respect for the physician's professional ability. Such professional attitudes swell the number of cancer patients who patronize quacks and cultists. These people at least show an interest in the patient and his problem and impress him with their efforts to solve it. Cancer patients often get a psychological build-up from quacks that

(Continued on Page 474)

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases.

AUREOMYCIN

Hydrochloride Crystalline



The Surgeon is no longer hampered in his work by the fear of uncontrollable postoperative infections, thanks in large measure to the sulfonamides and the antibiotics. Aureomycin is indicated for preparation of the gut before enteric surgery. The high concentrations attained by aureomycin in the bile make it of particular value in operations on the infected biliary tract. Its efficacy against streptococci and staphylococci, which are becoming increasingly resistant to penicillin, renders its use advisable in surgical conditions where these organisms are actual or potential invaders.

Packages

Capsules: Bottles of 25 and 100, 50 mg. each capsule. Bottles of 16 and 100, 250 mg. each capsule.
Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. distilled water.

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Industrial Health Day Successful

Several hundred industrial physicians and surgeons and others interested in the problems of health in industry gathered in Detroit, April 4, 1951, to celebrate the Second Michigan Industrial Health Day. The all-day session was held in the Rackham Memorial Building with Carl Hanna, M.D., Detroit, acting as General Chairman.

The 1951 meeting was sponsored by the Committee on Industrial Health of the Michigan State Medical Society, the Michigan Association of Industrial Physicians and Surgeons, University of Michigan Medical School, Wayne University College of Medicine, University of Michigan School of Public Health, Division of Industrial Health of the Michigan Department of Health, Michigan State Association of Industrial Nurses and the Michigan Industrial Hygiene Society.

The program featured scientific papers by Harry E. Mock, Jr., M.D., Department of Surgery, Northwestern University; Miss Helen DeCoursey, R.N., Kelsey Hayes Wheel Co., Detroit; Alfred W. Pennington, M.D., E. I. Dupont Co., Wilmington, Delaware; Oscar A. Sander, M.D., Marquette University College of Medicine, Milwaukee, Wisconsin; Robert C. Page, M.D., Standard Oil Company of New Jersey, New York, N. Y.; George A. Hardie, M.D., Assistant to the Chief of Medical Branch, U. S. Atomic Energy Commission, Washington, D. C.; James H. Sterner, M.D., Eastman Kodak Co., Rochester, N. Y., and Homer S. Myers, Radioactive Products, Inc., Detroit, Michigan.

The annual banquet was highlighted by an address by Dr. Lillian M. Gilbreth, Consulting Industrial Engineer of Montclair, New Jersey, mother in the best sellers "Cheaper by the Dozen" and "Belles on Their Toes." Dr. Gilbreth spoke on "The Industrial Worker's Better World."

Quarter Century Club Formed

C. E. Umphrey, M.D., Detroit, President of the Michigan State Medical Society, presided as toastmaster at the banquet which also featured the inauguration of the Twenty-five Years Occupational Health Service Group. Joseph L. Zemens, M.D., Detroit, retiring President of the Michigan Association of Industrial Physicians and Surgeons, presided over the organization ceremonies and presented silver medals to the following leaders of Michigan's industrial medicine during the last quarter century:

A. L. Arnold, M.D., Z. B. Bennett, M.D., H. S. Brown, M.D., C. J. Carpenter, M.D., G. B. Carpenter, M.D., C. A. Christensen, M.D., C. S. Clarke, M.D., Henry Cook, M.D., R. H. Denham, M.D., C. L. DeVries, M.D., C. H. Eisman, M.D., W. L. Finton, M.D., C. B. Gardner, M.D., L. C. Harvie, M.D., L. E. Irvine, M.D., Harley Krieger, M.D., D. F. Kudner, M.D., V. S. Laurin, M.D., A. F. Lecklider, M.D., C. P. McCord, M.D., E. G. Merritt, M.D., J. D. Miller, M.D., D. W. Patterson, M.D., G. C. Penberthy, M,D., A. E. Pullon, M.D., H. J. Pyle, M.D., J E. Rosenfeld, M.D., C. D. Selby, M.D., L. E. Sevey, M.D., M. R. Sutton, M.D., C. A. Teifer, M.D., G. M. Waldie, M.D., A. H. Whittaker, M.D.

Other M.D. registrants at the April 4 Industrial Health Day were:

Registrants.—Drs. Ira Avrin, Clarence Baker, Donald Ballard, T. I. Boileau, H. J. Brisbois, A. L. Brooks, H. S. Brown, M. R. Burnell, J. E. Caldwell, C. J. Clark, R. G. Colyer, W. T. Cooper, W. A. Dawson, Edwin DeJongh, P. E. Derleth, L. C. Donnelly, G. A. Eadie, W. J. Fulton, L. W. Galley, J. H. Ganschow, J. L. Glee, P. L. Gradolph, G. L. Hagman, W. D. Hall, Carl Hanna, G. A. Hardie, S. L. Hileman, D. V. Holman, E. C. Holmblad, W. L. Howard, T. H. Hunt, E. A. Irvin, K. T. Johnstone, O. J. Johnson, C. H. Keene, W. J. Kemler, D. J. Kilian, H. J. Krenlen, J. L. Krieger, D. F. Kudner, R. C. Leacock, T. E. Lewis, E. F. Lutz, O. T. Mallery, L. R. Martin, W. O. Martin, J. F. McCahan, F. B. McMillan, H. E. Mock, Jr., P. J. Oschsner, D. W. Patterson, E. H. Place, L. I. Powers, O. J. Preston, A. H. Price, F. A. Pumford, P. B. Rastello, A. S. Rogoff, T. I. Roth, A. D. Rush, O. A. Sander, N. W. Scholle, G. H. Scott, M. W. Shellman, Max Silverman, A. R. Sirna, W. J. Smale, S. D. Steiner, H. L. Stern, A. B. Thompson, R. S. Van Harm, V. H. Weidher, E. E. Weston, R. D. Wigent, H. W. Woughter, J. L. Zemens.

Additional Registrants—Don Fowler, A. E. Frazho, Wm. G. Fredrick, S. L. Salsinger.

WE AGREE

"Without physicians, there can be no hospitals. Without physicians, there can be no competent medical care. . . . It is important to bear in mind that nothing should be permitted to interfere with the physician and the control of his professional service. No authority, hospital or other, can direct the physician's professional service to his patient. Hospitals do not, and should not, practice medicine. This must remain the prerogative of the physician."—*Journal of the American Hospital Association*, November, 1950, page 60.



some things are Hard To Describe

Some advertisements are more difficult to write than others. What words, for instance, will tell you how handsome, yet how practical, Hamilton Colortone examining room equipment is? We can say— . . . that any of the four distinctive new Colortones brings a gracious note of color to your examining rooms.

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Michigan Postgraduate Clinical Institute -- 1951

The registration at the 1951 Institute in Detroit totaled 1,579 with the following breakdown:

Doctors of Medicine	1,001
Guests	266
Exhibitors	312
	1,579

Out-of-Michigan M.D.s who registered included physicians from Arizona, Australia, California, Canada, District of Columbia, Illinois, Indiana, Massachusetts, Minnesota, Missouri, New York, Ohio, Pennsylvania and Wisconsin.

A total of 32,418 lines of publicity appeared in Detroit and Michigan newspapers in connection with the 1951 MPCI.

What They Thought of the 1951 MPCI and Heart Day

Allan C. Barnes, M.D., Columbus, Ohio (Guest Essayist): "Could I express my appreciation to you for the exceedingly kind treatment I received while at the Michigan Postgraduate Clinical Institute. It was a great pleasure to meet you personally; I thought the programs very enjoyable and the entire session very well organized."

David A. Boyd, Jr., M.D., Rochester, Minnesota (Guest Essayist): "Regarding the Michigan Postgraduate Clinical Institute: it was a very great satisfaction to be at this meeting and I found your organization most generous and kind hosts. I wish to thank you for your courtesy in inviting me to attend this Institute, and I sincerely hope that my paper was of some help to your audience."

Stanley Gibson, M.D., Chicago, Illinois (Guest Essayist): "I have returned from the meeting in Detroit and it was indeed a very pleasant visit. My host, Dr. Nolting, looked after me every minute during my stay and I certainly appreciated his kindness. I also appreciated the very nice greeting from the Michigan Postgraduate Clinical Institute which consisted of a basket of fruit which was sent to my room. That is my first experience of this kind."

Francis D. Moore, M.D., Boston, Mass. (Guest Essayist): "I want to thank you for your kindness and hospitality on the occasion of my visit to the Michigan Postgraduate Clinical Institute. I was treated royally and feel that you did a fine job with your visitors."

Captain G. N. Raines, M.C., USN, Washington, D.C. (Guest Essayist): "Thank you very much for your letter of March 19. I appreciate the opportunity to participate in your program, which I thought was excellent throughout. Please accept my thanks for your kindness during my stay there, and especially for the hospitality shown me by my 'Ubiquitous Host,' Dr. Raymond W. Waggoner."

John G. Bielawski, M.D., Executive Secretary, Michigan Heart Association: "It is my distinct privilege to thank you, in the name of the Michigan Heart Association and its officers, for your splendid co-operation in making possible the Second Annual Michigan Heart Day. I wish also to transmit my personal thanks for having made our exhibit possible. Response to the exhibit was extremely gratifying. It went a long way toward making clear to the physicians of Michigan that we offer no direct medical care to the patient but only help in interpreting the physician's recommendation of "take it easy," on a practical, concrete basis for the housewife afflicted by heart disease. I am looking forward towards working with you next year in what will be the Third Annual Michigan Heart Day."

CANCER COMMENT

(Continued from Page 470)

carries them along for weeks or months of more comfortable living.

Is there not some way to interest *all* physicians to exert every proper effort to get the correct answer to their patients' cancer problem? The affirmative answer to this question will go far toward bringing about a better program of cancer control and a more friendly feeling for the medical profession.

When the dieter prepares the family fare

By curbing the appetite and elevating the mood, Desoxyn Hydrochloride helps to fortify the patient's resistance to constant temptation. Compared with other sympathomimetic amines, Desoxyn is more potent, weight for weight, so that smaller doses may be used effectively. One 2.5- or 5-mg. tablet before breakfast and another about an hour before lunch are usually sufficient to still the pangs of hunger. With Desoxyn you can expect a low incidence of side-effects plus faster action and longer effect than with other sympathomimetic amines. Try it. Abbott



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2.5 mg. per fluidrachm
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AMPOULES
20 mg. per cc.

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SELECTIVE SERVICE SYSTEM

Information Bulletin Vol. 1, No. 4

This is the fourth of a series of Information Bulletins which will be issued periodically for the guidance and information of State and Local Advisory Committees. Should a reasonable amount of additional copies be desired, they can be obtained on request to the above address.

ITEM I STATEMENT CONCERNING POLICY OF NATIONAL ADVISORY COMMITTEE TO SELECTIVE SERVICE ON DEFERMENT OF HOSPITAL RESIDENTS DURING 1951.

In order to meet the needs of the Armed Services practically all the physicians, dentists and veterinarians in Priorities I and II will need to enter service in the relatively near future. How soon the last of them will be required is impossible to state at the present time. But according to the law Priority I must be exhausted, either by call to active military duty or by Selective Service deferment, before individuals in Priority II, except for those who volunteer for immediate active duty, can be called.

There are, however, within Priority II, and even within Priority I, a few individuals who should be deferred because they are essential for teaching, for research, for public health services, or because they are rendering essential medical or dental services in isolated communities. It is the intent of the Selective Service Law that such individuals be deferred until replacements for them can be secured. However, the number of these deferred should be very few and should constitute rare exceptions to the general rule.

To meet the *currently projected needs* of the military service for medical and dental officers, the great majority of physicians and dentists in Priority I will need to be on active duty within six to nine months. To accomplish this, all interns in Priority I will need to enter service at the completion of their internships, and should obtain commissions in advance of that date. The only justifiable exceptions are those interns who are accepted for residencies in the scarcity specialties and whose services are required to meet minimum essential needs of medical and dental schools or hospital services. These *scarcity specialties* for the purposes of deferments are *anaesthesiology, physical medicine* and *rehabilitation, psychiatry, radiology, neurology, pathology, public health, orthopedic surgery, oral surgery* and the *basic medical sciences.* Deferments that will permit an individual to complete one or two years of training in these areas will provide the military services with individuals who have some training in needed specialties and at the same time will help to meet the minimum essential staff needs of certain hospitals, teaching service, and health department.

Of the other physicians and dentists in Priority I, that is, those who are in hospital residencies, in practice, or serving in other civilian capacities, the great majority will also be needed in the immediate future.

For the few individuals in these groups for whom indeterminate deferment is necessary, such deferment should be given as a II-A classification by Selective Service upon the recommendation of the National Advisory Committee.

All others in Priority I should seek commissions without delay. Then, if postponement of call to active duty is subsequently justified, this should be accomplished by recommendation for the State Advisory Committee through appropriate military channels.

The above policies will make it necessary for the hospitals to fill their residency appointments almost exclusively from individuals in Priorities II and, preferably, III and IV.

In spite of the fact that individuals in Priority II are not obligated for immediate service, most interns, as well as residents in this priority, will be well advised to seek commissions, upon completion of their internships or residencies, since their services will probably be needed in the relatively near future.

An over-all estimate as to the number of individuals who should be available to serve as hospital residents next year indicates that this total will probably be about 75% of the residents presently serving in hospitals. This over-all situation should be kept in mind by hospital administrators in making their plans for house appointments for the coming year.

DOCTOR SHORTAGE DEPLORED

A West Virginia Democrat, Rep. Cleveland M. Bailey, took the House floor last week to deprecate insufficiency of medical personnel in Veterans Administration to permit proper staffing of VA hospitals. Six new ones are completed but unopened for lack of doctors, he said, and 26 more will be ready for occupancy before the end of this year, requiring an additional 460 medical personnel. "I want to make the prediction that unless something is done in the draft legislation that is about to be considered by the House to exempt doctors who are on the staff of veterans' hospitals, more veterans' hospitals will be closed by the end of this year," he said.—WRMS, January 29, 1951.

DRAFT-DOCTORS

The *Washington Post* for January 24, 1951, stated that the Department of Defense will soon issue an order freezing all commissions for draft-liable physicians at the rank of First Lieutenant, lowest officer rank in the medical corps. "This action will be followed by a second freeze, around the middle of May, banning all further commissions for draft-liable physicians. . . . The Department of Defense intends to bring every one of the 4,813 physically fit Priority I physicians into uniform by July 1, 1951 . . ."

Rectal palpation gives an accurate diagnosis in 80 per cent of prostatic cancer. A poorly defined and nontender nodule is always suggestive of malignancy in this tissue.

The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
VOLUME 50 MAY, 1951 NUMBER 5

Obstruction of the Common Bile Duct by Stones

By Warren H. Cole, M.D.
Chicago, Illinois

IN REALITY, stones in the common duct are a complication of cholelithiasis. It is my impression that at least 80 per cent of stones found in the common duct form in the gall bladder and drop from the cystic duct into the common duct as small stones. A great majority of these small stones pass through the sphincter of Oddi into the duodenum. Some, however, do not pass through the sphincter of Oddi, and remain in the common duct, with subsequent growth. We have fairly good evidence that a small proportion of stones found in the common duct actually are formed there, either in the intrahepatic or extrahepatic duct. We have fairly good evidence of this, insofar as all surgeons have seen at least a few patients who have had choledochostomy on several occasions for removal of stones in the common duct. The fact still remains, however, that the majority of stones found in the common duct subsequent to an operation for removal of stones are probably residual stones left by the surgeon, and not newly formed ones.

Stones are found in the common duct of 15 to 20 per cent of patients having cholecystectomy for cholelithiasis. This percentage will be higher in charity patients than in private patients. As a matter of fact, a survey[1] made in our hospital (which is charity) about ten years ago revealed that 22 per cent of patients having cholecystectomy for cholelithiasis had stones in the common duct. It is well known that fully 25 per cent of stones found in the common duct are not associated with a previous history of jaundice.

Contrary to the usual impression among clinicians that stones are not encountered in acute cholecystitis, statistics reveal that they do occur under these circumstances. For example, in a series of 697 patients operated upon for acute cholecystitis, Glenn[2] reported performance of choledochostomy alone after cholecystostomy or cholecystectomy in 8.5 per cent of cases. Stones were found in 66 per cent of this group having choledochostomy.

Important Points in Differential Diagnosis

It should be emphasized that the establishment of an accurate diagnosis is extremely important, but nevertheless may be very difficult on certain occasions. The importance of accurate diagnosis can readily be appreciated by the fact that operation is obviously strongly contra-indicated in virus hepatitis. As a matter of fact, operation in such patients may actually result in death of the patient.

The first symptom complained of by patients with jaundice due to stone in the common duct is usually pain located in the right upper quadrant or in the mid-epigastrium, perhaps to the right of the midline. This pain commonly radiates posteriorly toward the midline. For a day or so this pain is severe, but gradually lessens and commonly disappears completely, even though obstruction is complete. Within forty-eight hours after onset of the pain, itching and jaundice appear. Although the first stool may be of normal color, subsequent stools are acholic so long as the obstruction remains complete. Accompanying the pain in the initial stages of the disease, nausea and vomiting are common but the latter is by no means constant. Muscle spasm is usually not present, but occasionally may be present, particularly in the

From the Department of Surgery, University of Illinois, College of Medicine.

right upper quadrant or right epigastric. Fever is present only in cases complicated by infection of the suppurative cholangitis type. If the patient has been jaundiced for several days, bleeding from the gums or gastrointestinal tract are occasionally encountered, but only rarely will it be serious.

Hepatogenous Jaundice.—Patients with this disease must be identified and differentiated from those with stone in the common duct because of the deleterious (and sometimes fatal) effects of operation. The two most common types of hepatogenous jaundice are virus hepatitis or infection of the epidemic type, and homologous serum jaundice. In the former group of patients there is commonly a history of contact with another patient with similar symptoms three to four weeks previously. In the latter group, that is, homologous serum jaundice, there is frequently a history of a needle puncture (with an unsterilized needle) or a transfusion 60 to 120 days previously.

The history is similar in either of the two conditions enumerated above. The first symptoms are weakness and anorexia, followed in two or three days by jaundice. It should be emphasized, however, that these two diseases probably do not progress to the stage of jaundice in the majority of cases. In severe cases, stools are cholic for several days, after which time they become acholic, even though jaundice persists. Contrary to general opinion, itching is fairly common in jaundice of this type.

Acute or subacute atrophy of the liver is a very serious condition, usually fatal, with onset similar to virus hepatitis, but with symptoms usually more pronounced. Although the liver may be enlarged in the early stages of this disease, it decreases in size on most occasions until it is not palpable. In any type of severe acute hepatic insufficiency of the hepatogenous type, spider naevi are occasionally encountered. When these naevi are multiple, they are of great significance diagnostically, particularly if they have developed only since symptoms developed. On many occasions, a musty aromatic odor (fetor hepatis) will be detected. As emphasized by Watson,[4] this odor is in reality quite characteristic and, in fact, may be pathognomonic of severe hepatic disease.

Carcinoma of the Pancreas.—In about 80 per cent of patients this lesion develops without pain; weakness and anorexia are the first symptoms. Jaundice and occasionally itching occur in a few days. An important feature about the diagnosis of carcinoma of the pancreas lies in the fact that once jaundice develops and stools become acholic, there is no recession in these symptoms. In the later stages of carcinoma of the head of the pancreas, the jaundice may have a greenish hue to it, especially in the cachectic stage of the disease. One of the most diagnostic features of carcinoma of the head of the pancreas is an enlarged, non-tender gall bladder, which usually, but not always, can be palpated. This large gall bladder, contrasted to the small shrunken gall bladder in a patient with stones in the common duct, is extremely valuable diagnostically, as was brought out by Courvoisier a number of years ago.

Carcinoma of the Papilla of Vater.—In many ways, this lesion produces symptoms similar to stone in the common duct, although pain is usually less prominent. Intermittency of jaundice and acholic stools is fairly common because of necrosis of tumor at the duct outlet. Very important in this diagnosis is the fact that occult blood can usually be found in the stool. In advanced cases fluoroscopic examination with barium will reveal a deformity of the duodenum.

Hemolytic Jaundice.—Symptoms are insidious in this condition, or in fact, often absent. Jaundice itself may develop early in life and is usually intermittent in type. Commonly there is a history that other members of the family have a similar type of jaundice. The stool is of normal color. A large amount of urobilinogen is found in the urine, but no bilirubin. A large spleen can be very helpful in the diagnosis of this condition.

Stricture of the Common Duct.—Symptoms are quite variable in stricture of the common duct, but in 70 to 75 per cent of patients there will be a previous history of cholecystectomy. Pain is variable but on most occasions is present in at least a slight degree although occasionally there is very profuse pain in the upper abdomen. At the onset of stricture, the jaundice is commonly intermittent in type and usually associated with chills and fever.

Value of Liver Function Tests.—There are several liver function tests which will be of great help in differentiating hepatogenous jaundice from extrahepatic obstruction. In this group may be

mentioned the urobilinogen, thymol turbidity, alkaline phosphatase, and bromsulfalein tests. Urobilinogen may be found in the urine in states of excessive hemolysis and hepatocellular jaundice. However, it must be remembered that urobilinogen will not be found in the urine if complete obstruction of the common duct is present. The thymol turbidity test is of considerable value. Readings above 4 units are considered indicative of the presence of intrahepatic disease. The alkaline phosphatase test is of about equal value, but in a different respect. With few exceptions readings over 10 units are indicative of obstructive jaundice; in normal people and patients with hepatogenous jaundice readings are usually under 10 units.

Ordinarily, liver function tests are normal in all patients with early common duct obstruction without acute hepatic disease. At the onset of jaundice due to obstruction of the common duct by stone, there will be no significant intrahepatic disease. However, if suppurative cholangitis should develop, as indicated by chills and fever, considerable cellular damage with impaired function may result.

Preoperative Treatment

Of vital importance in the treatment of patients with stone in the common duct is the fact that immediate operation is rarely indicated unless a severe suppurative cholangitis exists concomitantly. In fact, it is usually desirable to wait a few days before operation is contemplated, since dilatation of the duct around the stone commonly results in dislodgment of the stone with conversion of complete obstruction to partial or intermittent. Relief of complete obstruction obviously would improve the patient's operability. Of equal importance in the warning about early operation in obstructive jaundice is the fact that an accurate differential diagnosis is so often impossible to make in the first few hours of hospitalization. Since the disease will usually be of recent onset, there will rarely be any severe nutritional deficiency or severe loss in weight. Nevertheless, it is essential to maintain a normal caloric intake, concentrated on a high protein high carbohydrate diet. If the patient is nauseated or unable to take food by mouth, calories would have to be supplied by intravenous therapy, consisting of glucose and amigen along with a small amount of saline. Amigen can be given safely in common duct obstruction but its rate of administration should be reduced somewhat. When jaundice has been present for more than a few days, administration of substance having vitamin K action should be introduced to prevent hemorrhage due to vitamin K deficiency. Numerous water-soluble synthetic agents are available for this purpose. The dose of one of these (Hykinone) is 2.5 mg. when injected intravenously, intramuscularly or subcutaneously. In reality, the dosage should be dependent upon the prothrombin level. If considerable hepatic insufficiency exists, the prothrombin level will not revert to normal with such a small dose. Under those circumstances, a large dose, up to 10 to 15 mg. per day, would be required. Failure of the prothrombin time to respond favorably to these drugs is commonly an indication of severe hepatic insufficiency.

Operative Considerations

It is not our purpose to present details of technique in this discussion. Some of the principles in the operation of choledochostomy are illustrated in Figure 1. I wish to emphasize the importance of care in palpation of the common duct, lest a stone be pushed upward into the liver. I had this complication happen to me on one occasion. At the onset of operation, I palpated a stone in the common duct, but without exercising due care, I dislodged it upward into the liver and could not retrieve it by scoops after I had opened the common duct. In this particular case I had to perform a choledochostomy and go back later to remove the stone when I discovered by cholangiography that it had dropped down into the common duct.

To identify the common duct accurately, aspiration with a small hypodermic needle is extremely helpful. Before making an incision in the duct, the exterior should be dissected free to be certain that the right hepatic artery does not cross to the right, anterior to the common duct. After removal of all stones with a gallstone scoop, one must be certain that a probe or scoop can be inserted downward past the sphincter of Oddi. On numerous occasions the end of the probe or scoop can be palpated through the duodenal wall and thought to be within the lumen, whereas in reality it has lodged outside it posteriorly, in the margin of the posterior wall. With very few exceptions the end of the probe or scoop can actually be seen through one layer of duodenal wall, but not through two layers. This visual phenomenon has been a great help to me in being certain

that my probe or scoop had passed through the sphincter of Oddi.

In a preliminary report by Lampert and associates,[3] disintegration of gallstones by exposure to the ultrasonic beam for fifteen seconds has been dscribed. Up to date they have tried this method only on animals, but no deleterious effects on dogs have been noted. Two or three types of electronic probes have likewise been described to aid in the finding of stones within the common duct. Conceivably they could be very helpful in finding the probe touches it and touches it with more than a slight contact. Under these circumstances of contact, it is usually possible to find stones with a probe or scoop. However, my opinion of the value of such an instrument is by no means final since I have not had an opportunity to try any of them.

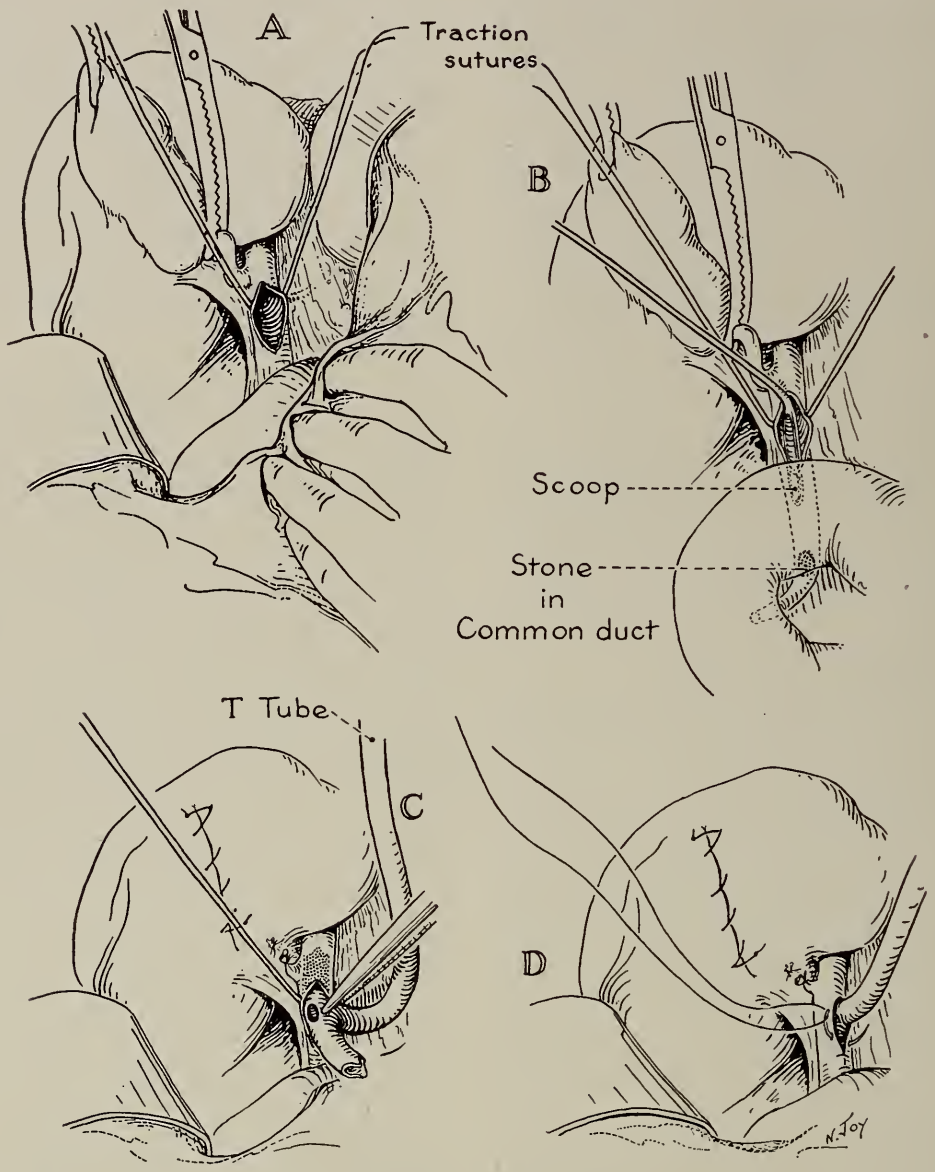


Fig. 1. Choledochostomy for stone in the common duct. (A) The common duct is opened between two stay sutures of fine silk. (B) Stones are removed with the aid of proper scoops. (C) After the stones have been removed a T-tube is inserted. (D) The opening around the tube is closed with one or two sutures of No. 000 plain catgut (From *Operative Technic*. Edited by W. H. Cole. New York: Appleton-Century-Crofts, 1949.)

After the surgeon is convinced that all stones have been removed, a T-tube should be inserted and the opening in the common duct closed around the T-tube with interrupted sutures of

fine catgut. The wound is closed around this T-tube leaving a soft Penrose drain leading down to Morrison's pouch. The author is aware of the fact that some surgeons close the common duct without drainage after removal of stones. However, since development of a stricture following implacement of a T-tube in the common duct is practically unheard of, the author prefers to insert a tube, although on a few occasions he has closed out the duct with interrupted sutures. If the duct has been closed without the insertion of a T-tube, there is still more indication for the insertion of a Penrose drain down to this area since any leak of bile might be followed by bile peritonitis or an abscess.

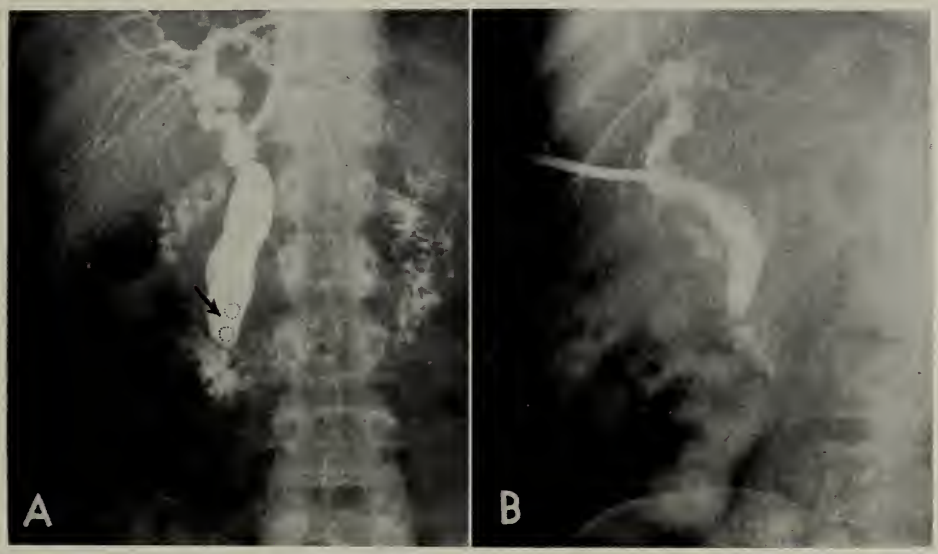


Fig. 2. This patient had a cholecystectomy and choledochostomy with removal of fifty small stones from the common duct. Shortly after operation she developed itching, slight jaundice and had several acholic stools indicating common duct obstruction. (A) Cholangiogram taken three months after operation revealed the shadow of two residual stones in the common duct. The shadows were not visible in the reproduced photographic print but the two dotted circles indicate their size and location on the film. (B) She was placed on bile salts 3 to 5 grams per day and at the time of this cholangiogram (nine weeks after discovery of the residual stones) the shadows are no longer visible. The T-tube was removed a week or two after this cholangiogram. The patient has remained well up to date. It is barely possible that these stones were passed spontaneously, but the author is of the opinion that the bile salts exerted a favorable influence and would recommend their administration under similar circumstances.

Postoperative Care

Usually the postoperative care in patients having choledochostomy is relatively uneventful. Intravenous fluids would be necessary so long as gastric decompression is carried out, and in the author's opinion this decompression is helpful in eliminating abdominal distention, gas pain, et cetera, if maintained for about forty-eight hours. Oral feedings are resumed as soon as the tube is removed. The patient should be able to take a regular diet within a day or so after this. One of the synthetic vitamin K-like products should be given daily for five to six days after operation in doses equal to 2.5 to 5 mg. per day. More should be given on the day of operation particularly if there has been any prothrombin deficiency.

The author is not a proponent of prolonged drainage of the common duct with a T-tube. On about the tenth day we begin to clamp the tube an hour or two each day, lengthening the period of obstruction from day to day until the patient is able to tolerate clamping of the tube overnight without symptoms. If the stools are of normal color and the patient can tolerate clamping of the tube for twelve to twenty-four hours, it can safely be removed. In the average case, the time of removal would be about three weeks.

Complications of Stone in the Common Duct

The most common and most significant complication of stone in the common duct is suppurative cholangitis. With very few exceptions, patients suffering from this type of infection will complain of chills and fever. Pain may be pres-

ent in the majority of cases, but is not always severe. In addition to chills and fever, other manifestations of infection, including leukocytosis, anorexia, weakness, et cetera, may be present. When suppurative cholangitis appears with stone in the common duct, emergency operation is strongly indicated. On numerous occasions the author has given penicillin and streptomycin to patients with this condition. On not a single occasion has penicillin been observed to exert the slightest benefit or control the infection. On one or two occasions streptomycin has been of distinct benefit. Aureomycin might be slightly more effectual, but the author doubts if chemotherapy will ever supplant operation because chemotherapy can obviously not relieve an obstruction. It would appear entirely reasonable to plan on an operation as soon as operability permits, introducing chemotherapy as soon as the diagnosis is made and continuing it for a few days after operation, depending upon evidence of infection.

As already stated, hemorrhage from the gums or gastrointestinal tract is occasionally observed in patients with obstruction of the common duct by stone, particularly if obstruction has been present for several days or weeks. As stated previously, this hemorrhage will depend upon vitamin K deficiency and is controlled by vitamin K-like products unless the hepatic insufficiency is severe.

A few miscellaneous complications, such as anemia, loss of weight, et cetera, are observed in common duct obstruction, usually only when obstruction has been present for several weeks. Kidney damage and uremia occur, but are uncommon. Bile peritonitis may develop after choledochostomy if leakage of bile from the duct occurs, and no drain was left in to allow for drainage. Even when drains are inserted, care must be exercised in closure of the wound since too tight closure around the drain may not allow free drainage. Pancreatitis occasionally develops as a complication of stones in the common duct; under such circumstances the chronic type is more common than the acute. Absence of bile from the digestive tract, as would take place in complete obstruction, obviously interferes with digestion, but serious malnutrition is rarely encountered except in seriously neglected cases.

The complications which most commonly result in fatalities are hepatic insufficiency and infection. Infection itself may be an important (in fact, the most important) factor in the development of hepatic insufficiency. On other occasions, severe hepatic insufficiency may develop without obvious explanation. As stated previouly, obstruction of the common duct in the absence of infection produces only slight demonstrable liver damage, for several days at least. Nevertheless, it is unreasonable to expect that a complete retention of bile as would exist in complete obstruction of the common duct, could exist without inflicting damage on the liver. It is very probable that considerable damage is inflicted even though microscopic sections reveal no pathologic changes, and liver function tests reveal no impairment of function. When infection is the primary cause of death, it usually is manifested first as a suppurative cholangitis (secondary to the obstruction), and later develops into multiple liver abscesses; the latter complication of liver abscesses will rarely be encountered in modern times if operative drainage of the common duct is not delayed and chemotherapy is instituted along with operation. It must be remembered that infection may be superimposed on a collection of bile escaping from the common duct into the peritoneal cavity, and likewise that it may develop as the result of massive bacterial contamination at operation, by excessive trauma at operation, or by unwise choice of large suture material.

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MSMS

Vascular disease is more frequent and severe in diabetics in whom the disease begins in the first or second decade and who survive more than fifteen years than in those with an onset in middle life.

• • •

In prostatic cancer without metastasis, castration or estrogens appear to have equal therapeutic value but the two combined promote increased survival.

• • •

Needle biopsy of the liver is contraindicated in small livers because of possible bowel perforation and in obstructive jaundice because of risk of establishing a bile fistula and bile peritonitis.

Allergic Myalgia

By Theron G. Randolph, M.D.
Chicago, Illinois

ROWE[23] in 1930 was the first to point out the allergic etiology of various muscle aches and pains as a part of the clinical picture of what he termed allergic toxemia. In subsequent publications[24,25] he continued to stress the importance of such muscle symptoms, citing several case illustrations of painful, aching muscles of the neck, back and extremities as manifestations of the food allergy process. Rinkel[21] in 1933 mentioned aching of the neck muscles as one of the prodromal features of attacks of migraine due to food allergy. This point of view was first presented by the writer[14] in 1947. Meyer[7] has subsequently reported myalgias as manifestations of food allergy.

Valleix[30] in 1841 mentioned the diet as a precipitating factor in the development of painful aching symptoms occurring in the muscles of the upper back and posterior cervical region. Gudzent[5] in 1927 expressed the belief that a special group of rheumatic disturbances might be of allergic origin and in 1935 stated that chronic rheumatism was sometimes made worse by the ingestion of specific foods, and that the removal of these foods from the diet resulted in improvement. Curschmann[3] in 1937 spoke of nutritional allergies in relation to muscular rheumatism.

The association of muscle symptoms of the posterior cervical region and upper back was correlated with the history of allergic disturbances by both Seydell[26] and Williams[31] but neither traced the muscle responses as manifestations of specific exposure to allergens, both emphasizing the role of physical factors in the pathogenesis of such symptoms. Williams felt that these symptoms were on the basis of a physical allergy and described this as part of the picture of intrinsic allergy. The conception that physical agents were responsible for the precipitation of such symptom syndromes has been observed by many clinicians.[4,6,8,9,26,30,31]

The allergic response involving skeletal musculature is most commonly localized to the muscles of the posterior cervical region, shoulders and upper back. Pulling and drawing sensations, tautness, stiffness and aching pain involving the nuchal muscles and occurring both with and without associated headache is a common symptomatology encountered in taking histories in allergic individuals. Myalgia of the posterior cervical muscles has been repeatedly observed by the author to follow the experimental ingestion of foods or exposure to inhalants in specifically sensitized individuals. The fact that symptoms of this type may be reproduced at will under experimental circumstances, that is, following the trial ingestion of allergenic foods or the overdosage of house dust extract or massive dust exposure in dust-sensitive individuals and that such chronic symptoms may be relieved following the avoidance of incriminated ingestant allergens and avoidance or specific therapy in the dust-sensitive patient, is the basis of the thesis that such manifestations are of allergic origin. The relationship of nuchal myalgia and headaches as clinical manifestations of allergy has been presented in another communication.[11] Less commonly a more acute allergic reaction involves sharply localized areas in the trapezius or sternocleidomastoid muscles resulting in attacks of acute torticollis or "wry neck"; several cases, in which acute episodes meeting the descriptive feature of acute torticollis have followed the trial or inadvertent ingestion of foods in specifically sensitized individuals, have recently been reported.[10]

Similar localized reactions have been observed less frequently in the calf muscles, the hamstrings, the lower muscles of the back, the pectoral muscles, the intercostals and in the rectus abdominus. The following cases were chosen to illustrate the localization of myalgia of allergic origin to these structures.

Case Reports

Case 1.—L. S., a laboratory technician and physician's wife, aged thirty-two, had been subject to intermittent urticaria, seasonal hay fever and asthma since a child with progressively severe perennial allergic rhinitis and bronchial asthma since 1935. Chronic fatigue had been a major symptom for many years.

For at least fifteen years she had complained of intermittent attacks of myalgia of the posterior cervical muscles occurring in association with severe headaches. Individual episodes were characterized by pulling, drawing, tautness and progressive aching of the nuchal muscles, followed by the development of sharply localized tender areas on the upper edges of the trapezius muscles and the subsequent development of a severe generalized headache. The latter occurred in association with an accentuation of her chronic fatigue. These

Read before the Mid-west Section of the American Federation for Clinical Research, Chicago, October 30, 1947.

Dr. Randolph is Instructor in Medicine, Northwestern University Medical School.

attacks usually began on awakening in the morning. They varied in severity and duration from mild episodes not progressing beyond the stage of tautness and aching of the cervical muscles to more severe bouts characterized by progressively troublesome pains and contractures of the nuchal muscles which elevated her shoulder and pulled her head backward and toward the affected side. When present to a similar extent bilaterally, both shoulders became elevated and the neck became hyperextended. The more acute attacks had all the clinical features of acute torticollis, with the exception that she never experienced the sudden and acute onset of neck pain as in the cases of acute torticollis.

Examination during attacks revealed marked firmness and tautness of the trapezius, and the presence of tender, indurated areas along the upper borders of the mid-portion of this muscle. Various degrees of extension of the neck and immobility with lateral fixation of her head existed in proportion to the severity of the symptoms. Gentle massage of the posterior neck, although very helpful temporarily in "loosening" these muscles and alleviating the pain and aching, failed to change the course of the attacks.

For the past fifteen years she also has had intermittent cramps of her legs; these acute attacks were superimposed on a background of constant pulling, aching and drawing leg pains. The sudden onset of acute leg cramps might awaken her at night or make it necessary to drop whatever she might be doing in order to massage the "knots" in the leg muscles. In such acute episodes her husband, a physician, reported the presence of spindle-shaped, exquisitely tender, hard nodules on palpation of the involved muscles. Such indurated areas varied in size from 1 to 3 cm. in diameter and were sometimes as long as 15 cm. The larger knots were observed principally in the gastrocnemius muscles, less extensive involvement occurred in the hamstrings and tibialis anticus. When subject to oft-recurring or continuous muscle symptoms of this type, she was unable to walk up or down stairs and for several days at a time it might be necessary for her to be carried about the house.

There were also less frequent occasions when she would experience the sudden onset of violent pain and sharply localized intercostal tenderness in the mid-axillary line of the right chest. These excruciating pains were associated with profuse perspiration and materially interfered with her ability to breathe but fortunately only persisted for a few seconds. In contrast to the type of pain in pleurisy, the pain of these attacks was only accentuated by expiration. The examination of the chest during such episodes remained negative except for the localized tenderness and the obvious distress of the patient.

Repeated medical consultations and examinations over a period of many years had failed to reveal the cause of these troublesome and frequently incapacitating muscle symptoms. There had been no evidence of an infectious process as evidenced by normal blood counts, sedimentation rates and other laboratory findings. There had been no evidence of mineral or vitamin deprivation or deficiency, and massive doses of calcium and vitamins by various routes failed to alter the course of the illness. X-rays failed to reveal any evidence of rheumatoid arthritis. Various blood chemistry determinations had been reported negatively.

The first experimentally induced attack of acute myalgia was associated with an individual food test[16,19] with wheat; experimental ingestion after four days of complete avoidance was followed by a sharp paroxysm of coughing beginning at five minutes, followed by a chill at forty-five minutes and the onset of cramping pains in the leg muscles at fifty-five minutes. Similar leg symptoms developed in association with several other diagnostic individual food tests, the most violent response occurring ten minutes after the test ingestion of eggs. This proved to be one of the most severe muscle reactions that she had ever experienced. Three days were required for the acute symptoms to subside, less severe soreness persisted for several additional days. Less acute muscle symptoms followed the test ingestion of potatoes and of corn, with the development of leg symptoms at fifteen and twenty minutes, respectively.

Additional foods have been incriminated in respect to other allergic symptoms. With the avoidance of the major allergens and the use of those with lesser degrees of sensitivity in spaced feedings, she had no unexplained headaches, neck, leg or chest pains during the past year. On repeated occasions a minimal amount of eggs has reproduced violent muscle symptoms, several times this occurred inadvertently and was discovered in retrospect after the onset of an attack. Potatoes, corn and wheat have been shown to be effective in producing muscle symptoms in the order named, but after several months of avoidance she has regained a sufficient tolerance for these foods that repeated ingestion is necessary to bring about such a response.

Case 2.—E. R., a housewife, aged fifty-three, had been subject to intermittent attacks of pulling, drawing and aching sensations of the cords of the posterior neck for thirty years. Although these episodes varied markedly in intensity, the pain and stiffness of the neck muscles were invariably more pronounced in the early morning hours, usually beginning with the first motion in bed on awakening. Whereas at first the neck symptoms were only occasionally associated with headaches, this relationship became much more common as the episodes increased in frequency and intensity. Her headaches invariably started with myalgia of the nuchal muscles, the aching pains then spread to the frontal region and the more severe seizures were associated with scotomata, photophobia, tinnitus, dizziness, tingling of the fingers, blurring vision, suggestive hemanopsia and extreme fatigue. Sudden motion of her head in any direction increased the dizziness to the point that she commonly fell. Vomiting occurred occasionally.

Her neck had been continually stiff and sore and she had been unable to arise from bed without assistance for a year prior to her first visit in 1946. Her neck remained painful on motion at all times and except for an occasional good day it was limited in the extremes of motion. On frequent occasions, sometimes as often as three times per week, she suffered acute attacks of neck pain superimposed upon this chronic level of myalgia;

these were usually initiated by a sudden motion of her head such as from turning in her sleep or upon arising from bed; they were characterized by the abrupt onset of excruciating pain localized slightly to the right or left of the spine in the region of the insertion of the trapezius muscle. In all instances the acute pains were limited to areas not larger than 2 cm. in diameter, firm on palpation and exquisitely tender to the point that she was unable to tolerate the weight of overlying clothing. She obtained some relief by taking as many as 100 aspirin tablets per week, maintaining both shoulders in elevated positions with her head bent slightly forward and, at times, wearing a neck brace.

Since the age of eighteen she had also been subject to acute cramping sensations in her feet and calves, for which various types of therapeutic shoes had been prescribed without effect. With the onset of such cramps, she obtained temporary relief by removing her shoes, standing barefooted and massaging her leg muscles. Cramps occurring in the calves were associated with the sudden development of exquisitely painful palpable "knots" in either one or both gastrocnemius muscles. Similar cramping sensations occurred a few times in the hamstring muscles and in the gluteus maximum area.

In recent years she had also complained of a painful, nodular areas occurring in the pectoralis major muscles. Each time such a reaction occurred in the left chest she was alarmed that it was a heart attack but electrocardiograms obtained with a few hours and at intervals of several days failed to reveal any abnormalities. She "blacked" out in two particularly violent attacks affecting the muscles of the anterior chest wall, remaining unconscious for a few minutes each time. On other occasions similar acute pains were localized to sharply limited areas between the ribs; these were so extremely painful and tender that inspiration and expiration were exceedingly difficult.

In addition she had been subject to varying degrees of pain and tenderness of the abdomen for a year prior to her initial visit. This portion of her history, at first difficult to interpret, became more apparent when examination during the more acute episodes revealed the presence of hypertonicity and tenderness on palpitation of segments of the rectus abdominis. She also remained subject to continuous anorexia and intermittent bouts of diarrhea and constipation; these symptoms were not related in timing with the tenderness of the abdominal wall except that occasionally generalized abdominal tenderness would be accentuated after a severe episode of diarrhea.

Although she had been under medical care for over a decade and had been subjected to repeated x-ray examination of the gastrointestinal tract, spine and head, she remained an unexplained diagnostic problem and had been generally regarded as a neurotic both by her physician and other acquaintances.

On allergic investigation she was found to be highly sensitive to house dust and silk, obtaining considerable relief from her respiratory symptoms as a result of specific therapy.

Deliberate individual food tests with corn, wheat, milk, eggs and beef were each associated with sharp clinical reactions. Sensitivity to cottonseed oil and cane as well as several other minor articles of the diet has been determined during the past two-year period. With the continuation of inhalant therapy, complete avoidance of the foods to which she is most highly sensitive and the use of other articles of the diet in spaced feedings she has remained free of troublesome allergic symptoms.

The effectiveness of various foods in precipitating one or more of the various muscle syndromes has been demonstrated repeatedly; this type of reaction not only occurred following the individual food tests with eggs, corn and milk but on each subsequent occasion that these foods were intentionally or accidentally ingested. Following the experimental ingestion of two eggs in April, 1947, after they had been omitted from the diet for the preceding five months, she developed tautness and drawing sensations of the posterior neck muscles at twenty minutes, followed promptly by the development of a severe generalized headache, rhinorrhea and extreme fatigue. After sleeping fitfully the night of the test, she awakened the following morning with marked stiffness and contracture of the nuchal muscles on the right; they remained firm, knotty and extremely tender, interfering with the normal motion of her head for the following three days.

On another occasion she noticed the gradual recurrence of her cervical myalgia and constant headache which persisted for a period of six weeks before it was determined that she was reacting to the cornstarch contained as an excipient in a daily dose of a single tablet of desiccated thyroid. Brief reference to this incident has been made in a previous communication.[13] With the omission of the thyroid her myalgia and headache subsided but promptly recurred following each attempt to resume this form of the medication. A similar reaction followed the ingestion of standard ferrum reductum, also known to have contained a cornstarch excipient. In each instance these drugs in tablets known to be free of cornstarch* were tolerated.

After the avoidance of milk for a period of one year, one-half glass was included in the evening meal otherwise containing compatible foods. Within one-half hour she experienced a twinge of pain in the upper mid portion of the right trapezius muscle which was followed by progressive tautness and pulling sensations localized to the right side of the neck. Observation later that evening revealed the presence of an exquisitely tender palpable nodule measuring 3 cm. in diameter in the upper mid portion of the right trapezius in addition to hypertonicity of all the muscle groups on that side of the neck and the tendency to hold the head and shoulders in relatively fixed positions favoring the shortening of these muscles. Three days were required for this attack to subside.

Aside from the deliberate or inadvertent exposure to known food allergens she has remained completely free of myalgia, headache, fatigue and other allergic symptoms, leading an energetic and useful life for the past three

*"Abergic" brand tablets, prepared by the Upjohn Company, Kalamazoo, Michigan, are free of corn and other allergenic foods commonly employed as excipients in pharmaceutical preparations. The problem of allergenic foods in medications has recently been presented by the author.[12,15]

years in contrast to the previous ten-year period of chronic invalidism.

Case 3.—C. J., a machine operator, aged thirty-three, was first seen in 1943 because of intermittent low backaches which had been present for the previous decade. Their onset occurred at the time he was employed as a structural steel worker, and they were attributed to the climbing in connection with this job. Although he changed his occupation to that of a machine operator in 1941, he continued to have on the average of two attacks weekly; an episode invariably occurred Sunday afternoon and Monday morning. A typical attack was described as a sense of rawness, generalized tenderness and aching of the muscles of the lumbosacral region occurring in conjunction with pulling, drawing and tautness of the hamstring muscles of both legs. His chronic fatigue was accentuated in association with his backache and leg symptoms and in about half of his attacks he also complained of a dull generalized headache. During these episodes he was told that he was "groggy," listless, irritable and difficult to work with.

In 1939 he began having perennial nasal stuffiness, accentuated each morning and very severe headaches which usually started on Sunday afternoons. The first indication of the onset of a headache was a sense of stiffening of the cords of the right side of the posterior neck and upper back; this was followed shortly by sharp pulsating pains extending throughout the entire right side of his head. Several extensive investigations had failed to reveal the cause of these symptoms; in the presence of normal x-ray examinations of the spine he was told that his symptoms were on the basis of nervousness.

Although he did not suspect any foods, his diet history revealed that he invariably ate chicken every Sunday noon prior to his acute headaches. An individual food test with chicken was followed by a chill, somnolence, pulling and drawing sensations in the cords of his neck and finally a severe headache. Not being completely convinced of the chicken reaction, he tried it on his own initiative after it had been cut out of his diet for a period of three weeks. One-half hour following he complained of stuffiness of his nose, at one hour developed marked tightness and aching of the sternocleidomastoid muscle followed by a severe right-sided headache. He claimed that his headache radiated down the cords of his neck to the right shoulder and that the pains in both his neck and head were accentuated by forward movement of his right arm. Pains at the base of the posterior triangle of the neck persisted for two days. After this food had been avoided for another six weeks he submitted to a third feeding test with chicken; it again was followed by a chill at ten minutes, nasal stuffiness at twenty minutes, somnolence at forty minutes with severe aching cramps beginning in his hamstring muscles at the end of an hour.

At the time of his experimentally induced backache and leg pains he was examined by orthopedic and neurological consultants who could find no evidence of abnormalities, although x-rays of the spine revealed sagital facets instead of frontal plane facets between the fifth lumbar and the first sacral vertebrae and the presence of a minimal scoliosis. In the opinion of the orthopedist, these changes were thought sometimes to be associated with backache, but similar findings frequently occurred in the absence of such symptoms.

The experimental ingestion of beef after four days of avoidance was followed by excessive gas, soreness across the lower back and a right-sided frontal headache beginning at the end of three hours. Although the headache had disappeared by the following morning, he continued to have a residual backache throughout the second day. On another occasion the ingestion of beef, under correct conditions of testing, was followed by the onset of aching and drawing sensations in the hamstrings and a severe backache.

An individual food test with milk was associated with chilliness, lassitude and a dull headache but without muscle symptoms. A similar test with orange was followed by the onset of a chill between ten and fifteen minutes, drawing and aching sensations in his legs, heartburn and headache at thirty minutes. Tests with wheat, eggs, and potatoes were without associated clinical reactions.

With the avoidance of incriminated foods, namely, chicken, beef, milk and orange, he has had no unexplained backache, headache, leg or neck symptoms except as he inadvertently ate the above foods. For the past three years he has been able to eat beef and orange in spaced feedings without trouble, but he has found it necessary to refrain completely from chicken and milk.

Case 4.—Another patient, E. F., a housewife and secretary, aged forty-two, has been reported elsewhere,[22] and only the details bearing on the question of her muscle symptoms will be cited. Suffice it to say in respect to her other symptoms that she had been subject to bronchial asthma since the age of fifteen, perennial allergic rhinitis, occasional episodes of urticaria and a chronic degree of fatigue. In recent years she had developed the typical clinical features of bronchiectasis, and this diagnosis had been confirmed by x-ray and bronchoscopic evidence; in fact, it had been treated by repeated bronchoscopic aspiration.

One of her major complaints was a sense of pulling, drawing and tightness of the posterior neck muscles and the muscles of the right shoulder and upper arm. This was commonly associated with numbness of the tips of her fingers on the right although both arms and legs readily became numb if maintained in a given position for even short periods. She had also noticed progressive puffiness of her eyes and edema of her ankles. Although she had remained under competent medical observation for a number of years there was no obvious cause for her muscle symptoms, edema or diminished tactile sensation.

At the time of her allergic investigation in March, 1947, there were no abnormalities of her physical examination except those findings consistent with bronchial asthma complicated by bronchiectasis and the typical changes in nasal mucous membranes.

There was no evidence of inhalant allergy as determined from the history or as a result of cutaneous and intracutaneous tests with inhalants.

An individual food test with corn was followed by a marked increase in her fatigue and the delayed develop-

ment of a definite increase in her ankle edema and an unmistakable accentuation of her asthma. A similar test with eggs was associated with chilling, somnolence, increased asthma and delayed aching sensations of various muscles simulating the prodromal features of the grippe. The experimental ingestion of wheat and milk were not associated with symptoms.

At this point she was placed on a basic type of diagnostic diet including wheat and milk but omitting corn, eggs and other foods of high dietary incidence. On the third day of this plan her diarrhea and other gastroinestinal symptoms ceased, and for the first time in several months she had completely normal stools. Her dyspnea improved to the point that she was able to walk up a flight of stairs, a feat that she had not been able to do for the previous three years. Foods were then returned to this diet according to the escalator plan of additions. After the first meal containing beef she developed an attack of "acute indigestion" followed by severe coughing and asthma which persisted all night. The following morning on awakening, she noticed a recurrence of the pain in her right arm and shoulder in association with generalized soreness of the entire right side of her chest. Other eliminated foods were then added without incident.

After having been completely free of her shoulder pain for a week, she noticed a sharp increase in her coughing during the course of broiling a steak; this was followed by a recurrence of her shoulder symptoms. She was then instructed in preparing the identical meal four days later. She started coughing fifteen minutes after inhaling the fumes of cooking beef; this progressed rapidly into severe asthma which persisted all night. The following morning she again complained of severe aching, soreness and lameness of her right arm and shoulder to the point that it was difficult for her to carry on with her housework.

Four days following the second exposure to beef by inhalation she was induced to ingest one quarter ounce of gelatin prepared from beef. Within the first hour she developed distention, tinnitus and headache. A second smaller dose was then ingested which was followed by alternating chilliness and profuse perspiration and finally, by vomiting. Marked puffiness of her ankles was noted four hours later, followed by severe abdominal cramps and multiple diarrheic stools containing profuse amounts of mucus. Diarrhea was still present on arising the following morning at which time she complained of extreme tautness and aching of her nuchal muscles, and aching, pulling and drawing sensations in the muscles of her right shoulder.

With the avoidance of incriminated foods, namely, beef, corn and eggs, she has remained completely symptom-free except for an increase of her constitutional symptoms immediately preceding and during the first two days of her menstrual periods. On several occasions she had developed headaches and residual muscle symptoms after the inadvertent inhalation of the fumes of cooking beef encountered in other homes. Her beef sensitivity is of such an extreme degree that on several occasions she had responded with typical symptoms of beef sensitivity following the ingestion of pork or lamb cut on a beef-contaminated butcher block. For the past year she had remained completely free of muscle symptoms except for the above instances associated with beef exposure.

Case 5.—S. H., a native Norwegian man, aged forty-three, had complained of intermittent pulling and drawing of the posterior neck muscles for many years, his neck feeling tight and "knotty" at times for no apparent reason.

His initial acute attack of generalized muscle aching and soreness developed on a January morning in 1943 after he had been thoroughly chilled during the night by the absence of sufficient bed clothing. Extreme fatigue and intermittent chills persisted through the next day. The second night, even though comfortably warm, he was awakened with the sudden onset of an extremely severe pain at the points of insertion on the cranium of the left posterior cervical muscles. By the following morning there were painful, tender, nodular swellings at the base of the skull, he had continual vomiting for several hours and passed large amounts of mucus in the stool.

At this point he gave up his job and moved to Tennessee. While there he continued to have a poor appetite, daily mucus containing stools, fatigue to such a degree that he was only able to walk short distances and generalized muscle symptoms. His back, shoulders and neck were so stiff and sore on awakening in the morning that it was with the greatest difficulty that he was able to dress and lace his shoes. He also complained of the presence of tender sore areas in his scalp, swelling and irritation of his eyes and periods of several days' duration characterized by profuse and continuous persipration. Shortly after arriving in Tennessee he started having acute attacks of dizziness associated with an overpowering drowsiness coming on within a few minutes after his customary breakfast of corn bread and corn syrup.

With the continuation of these symptoms, he finally returned to Chicago in the spring of 1944 and, to his surprise, immediately began to feel much better. It is of interest that his diet in Chicago did not include corn, as he had never been fond of it and had eaten it only when it had been served in other homes.

For several summers he had little trouble except for ragweed hay fever. In subsequent winters he had relatively mild recurrences of myalgia in association with other constitutional allergic symptoms as described. After his previous experience he was careful to avoid severe chilling. On many different occasions, however, he noticed the sudden onset of acute pain in his left anterior chest, associated with a steady sorness of the pectoral muscles, left shoulder and upper arm accompanied by a relative shortness of breath. He had been seen by numerous physicians in these attacks for fear that he might be having cardiac symptoms. Repeated electrocardiograms were invariably negative. On one occasion he developed acute cramping sensations apparently localized to the upper left abdominal wall which extended upward over the left side of the chest and into the left anterior neck; this attack developed within an hour after eating a large bunch of grapes. These symptoms were followed within half an hour by the gradual

onset of dizziness, anorexia and nausea. Marked soreness and tenderness of the muscles of the left chest persisted for three days. He tried grapes subsequently and they invariably made him sick. On one other occasion the ingestion of grapes was followed within ten minutes by pains in the fleshy muscles of the anterior chest wall of such a severity as to cause him to lapse temporarily into unconsciousness. Although he is fond of wine, it invariably upsets his stomach, causes profuse perspiration, weakness and residual constipation.

For approximately a year prior to his initial visit in the fall of 1947 he had been subject to increasingly troublesome perennial nasal stuffiness. He had also complained of intermittent bouts of abdominal cramps and diarrhea, the onset of which usually awakened him in the middle of the night.

For the two months prior to his initial visit he had complained of being exceedingly tired in the mornings, having aching, pulling and drawing pains in the muscles of his lower back and posterior thighs. He occasionally had a sharp, shooting cramping sensation in the hamstring muscles which was relieved by massage.

Coincident with starting a farm vacation in the middle of August, 1947, and eating an excessive amount of corn on the cob, he developed profuse rhinorrhea and continual dizziness. He attempted to return to work but was unable to do so because of the vertigo, and he consulted a nose and throat specalist who recognized the probable allergic nature of his symptoms.

On allergic investigation he reacted with positive skin tests to house dust and ragweed pollen. Specific therapy failed to relieve his symptoms, and it could not be determined with certainty that he was clinically sensitive to these agents.

He noticed improvement on the third and fourth days of avoiding corn in preparation for an individual food test. Within a few minutes after an experimental feeding of corn meal and corn sugar he complained of his face feeling flushed, generalized pruritus, followed in turn by nausea, intense perspiration, weakness of his knees and dizziness. Similar tests with wheat and milk were not associated with symptoms. Diagnostic measures were then stopped because of the complete relief of symptoms following the avoidance of corn and grapes, having had no further dizziness, diarrhea, backaches or leg symptoms, and being able to breathe through his nose for the first time in several weeks. Three months later he ate a corn fritter in the evening meal. Within three-quarters of an hour he developed a severe chill, followed by profuse, generalized perspiration, scratchy sensations of his eyelids and extreme tiredness and weakness.

With complete avoidance of corn and grapes he had no hay fever during the 1948 pollen season. It is of interest that as a result of serial intradermal titrations[18,20] performed at the end of each of the past two pollen seasons he was found to be twenty-five times more ragweed sensitive in 1947 than in 1948.

Although we have not been able to reproduce the original muscular symptoms in this patient following the experimental feeding of corn, it is of interest that his food test was done in the summer months. It is possible that he might have a thermal food allergy to corn of the type described by Rinkel[22] in view of the fact that he had increased muscle symptoms in winter months in association with cold exposure when eating corn but none in the past winter with the avoidance of corn. Although he had unmistakable symptoms following the test and inadvertent ingestion of corn, it also is a possibility that repeated exposure might be necessary to bring about the muscular reactions. The relationship of grape sensitivity and muscular symptoms has been demonstrated on repeated occasions; it is also of interest that during the period of active muscular symptoms he was receiving grape in cream of tartar. The absence of all muscular symptoms for the past two years with the complete avoidance of corn and grape makes it highly probable that the muscular symptoms in this case are on the basis of food allergy.

Discussion

The production of chronic disabling symptoms of myalgia, as illustrated in these cases, usually requires the existence of a high degree of sensitivity to a frequently ingested article of the diet. A masked food allergy response, as described by Rinkel,[18] is usually the responsible mechanism.

Multiple food sensitivity is to be expected in the type of case reported as myalgia of this degree of severity occurs most commonly in the far advanced food allergy patient. The relative incidence of specific foods causing this symptom response is the same as for other manifestations of chronic food allergy, the order of probability being specific sensitization to corn, wheat, milk, eggs, potato, et cetera.[17]

It is of interest that each of these five patients had been considered as suffering from psychosomatic manifestations and two of them actually diagnosed as "psychosomatic rheumatism." The point of view that muscle symptoms of the type herewith described are the result of "nervousness" has been repeatedy stated in recent years. Although the author cannot deny that such an interpretation may exist in certain cases, it is difficult to conceive of its mechanism and he has not had the experience of being able to demonstrate experimentally the etiologic role of these factors. The fact that such symptoms are associated with the ingestion of specific allergenic foods is subject to experimental demonstration not only in the cases herewith reported but in many additional individuals. No claim is made that the allergic reaction is the only cause of such symptoms, but in the cases studied, other factors, with the possible exception of cold exposure, did not appear to be operating.

There is more to be said in favor of Williams'[31] conception that manifestations of this type may be on the basis of a physical allergy, a view expressed by Seydell[26] and many earlier writers. Although cold exposure appeared to be a precipitating factor in causing a recurrence of muscular symptoms in one case, this type of history was not present in the other cases reported and in the majority of other individuals observed with this clinical condition.

The widespread involvement of various muscles and muscle groups is of interest, and there appears to be no accountable reason for the predilection of certain muscles in individual patients.

One might raise the question that these patients had some other disease to account for their muscular symptoms, but there appeared to be no other obvious interpretation of this type. In no instance was there any evidence of arthritis, as judged by x-rays of the adjacent joints. The possibility that involvement of the chest muscles might be on the basis of pleurodynia or Bornholm disease[29] cannot be dismissed but is unlikely in view of the absence of any evidence suggesting an epidemiology as commonly reported for this condition and the ability to reproduce recurrences at will and to effect relief as a result of adjusting the food intake in respect to specific allergens.

Of additional interest is the diagnostic confusion arising when muscular symptoms of this type are localized to the pectoral or intercostal muscles of the left anterior chest. Clinicans were well aware of the possibility that two of the cases cited might be having symptoms of cardiac origin, but repeated clinical and electrocardiographic observations were consistently negative in substantiating such a diagnosis. This course of events has been observed in at least six other patients subject to muscle symptoms on an allergic basis and is believed to be a fairly common cause of bizarre chest pain that is so confusing to the cardiologist.

No attempt has been made to study the histology of the involved muscles during or between attacks in these patients. Such observations in an apparently similar type of series have produced variable results.[1,2,28] Steiner and his associates[27] contrasted the polymyositis of rheumatoid arthritis as differing from the minor changes observed in fibrosis and other diseases affecting the muscles. To speculate on the possibilities of perivascular reactions and edema formation as manifestations of the allergic response is outside the scope of this clinical presentation.

Summary

Clinically, myalgia may be a specific allergic response of striated musculature and may involve regional groups of muscles, a single muscle or a patricular segment of a given muscle. The response is highly variable from one patient to another and, although a given food commonly produces the same symptom pattern on different occasions, it may produce symptoms localized to different muscles on other occasions. In some instances a generalized muscle soreness and aching may be present on arising in the morning after the ingestion of specific allergenic goods the preceding day. Patients sometimes describe this generalized reaction as aching all over or liken it to the feeling of having been severely pummelled the preceding night.

Of the various localized reactions, involvement of the posterior cervical muscles, particularly the trapezius and sternocleidomastoid muscles, is the most common. This aspect of the clinical problem has been presented elsewhere.[10,11] The involvement of other muscles appears to occur in the following approximate order: the gastrocnemius, hamstrings, the lower muscles of the back, the muscles about the shoulder girdle, the pectoral muscles, the intercostals and the rectus abdominus.

When the reaction occurs in the shoulder girdle, it is sometimes confused with the diagnosis of bursitis or arthritis; when localized to the left anterior chest, it is immediately confused with a heart attack; when the intercostals are involved, it may suggest a diagnosis of pleurisy, pleurodynia or spinal arthritis.

Complaints of patients with these symptoms vary from nagging sensations of pulling, drawing, tautness and aching of the involved muscles to violent and sharply localized pain and cramping sensations, both with and in the absence of nodular areas of increased firmness and tenderness in the bellies or insertions of the involved muscles. The affected muscles commonly become more rigid during sleep so that chronic symptoms are apt to be accentuated on arising in the morning. This timing is also typical of the complaints of the patient with a chronic food allergy who has a high degree of specific sensitivity.

These common muscular complaints, described variously as myalgias, myositis, muscular rheumatism, fibrositis, indurative headache, "tension headache" and by other descriptive terms have too fre-

quently been regarded as of psychosomatic origin for the want of another adequate explanation.

The relative percentage of such symptoms resulting from specific allergic reactions cannot be estimated at present, but the fact remains that such symptoms have been experimentally induced in known allergic individuals following the deliberate or inadvertent ingestion of allergenic foods, and finally, many patients with such chronic complaints have been relieved following adequate allergic diagnosis and the subsequent specific avoidance of incriminated allergens.

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MSMS

EXCERPTS FROM REPORT AND RECOMMENDATIONS TO CONGRESS BY THE FEDERAL SECURITY AGENCY—MARCH, 1951

Page 12—Paragraph 2

"While voluntary insurance has achieved considerable coverage, it offers only limited protection, mainly to middle-income groups in the larger urban areas, and cannot effectively meet the needs of the entire population."

Page 16—Paragraph 3

"Social insurance against the costs of medical care is essential if we are to achieve comprehensive social security and if the benefits of modern medicine are to be available to everyone.

"Private health insurance has achieved considerable coverage in recent years, but it cannot effectively meet the needs of all the people.

"Publicly subsidized private insurance would be costly, complicated, and only partially effective. Government health insurance administered on a decentralized basis as part of a national contributory social insurance system offers the most adequate and economical method of guaranteeing that there will be no financial barriers to needed medical care."

Common Geriatric Dermatoses

By E. W. Netherton, M.D.
Cleveland, Ohio

AGING is an insidious process which begins at birth and terminates at death. The complex biologic changes caused by aging do not occur at a uniform rate in all persons. One person may present more manifestations of senescence at sixty than another does at seventy or seventy-five years of age. Heredity, acute illness, nutritional and metabolic disturbances, personal habits, and occupational hazards are among the factors that influence the rate of biologic aging of all persons.

Because of advancements in preventative medicine and definite improvement in diagnostic and therapeutic procedures, medical science has increased the longevity of the human race. This progress has caused a gradual increase in the percentage of population over sixty years of age. Therefore, health problems of this group are becoming more common in the practice of most physicians. Perhaps geriatric medicine will become a recognized specialty. Degenerative changes and chronic incurable diseases common to this aged group present special problems of nursing and therapy. Mental deterioration of elderly patients often presents special problems. The rate of recovery of elderly patients is slower than in younger ones; consequently lack of co-operation and impatience of elderly persons augment the difficulties of the physician and other attendants. This is particularly true in the management of recalcitrant and tormenting pruritus and dermatitis, or eczema, in elderly patients.

Cutaneous manifestations are usually among the first and most easily recognized changes caused by aging. The skin becomes dry, less elastic, wrinkled, thin and scaly. Loss of cutaneous and subcutaneous fat is often an early manifestation of aging. Obliteration of youthful features is known to be distressing to women approaching senescence. Graying and loss of hair usually precedes atrophic changes involving the skin. Loosely adherent seborrheic scales and crusts appear on the face and pigmented spots or senile freckles develop on the face, neck and dorsal surfaces of the hands. These lesions are often precursors to precancerous senile keratoses. With advancing age the color of the skin changes from pink to a yellowish or grayish tint. A certain type of yellowish tinge of senile human skin is most apt to develop in blond persons who have sustained repeated and prolonged exposure to sunshine. The discoloration is a clinical manifestation of a degenerative process which Weidman[4] has termed senile elastosis.

Pathologic changes of senescent skin consist of atrophy of the epidermis with increased pigment in the basal layer. Because of degeneration and loss of elastic tissue in the corium, the epidermodermal junction becomes flattened. Varying degrees of atrophy of collagen tissue and cutaneous appendages occur, resulting in a decrease in thickness of the corium. Blood supply to senile skin is decreased because of sclerosis of vessels which is an inevitable process of aging. Ormsby[3] has pointed out that the histologic degenerative changes which occur in senile skin resemble closely changes seen in xeroderma pigmentosa and in roentgen ray and radium dermatitis.

These changes predispose the senile skin to infections and favor the development of gross degenerative lesions. Furthermore, they are factors partly responsible for recalcitrant dermatitis affecting elderly persons. Concomitant metabolic disturbances, nutritional deficiencies, cardiorenal disease, arteriosclerosis and other manifestations common in persons past sixty years of age may influence the rate of recovery from dermatitis in this group.

Many dermatoses occur in both young and elderly persons; however, certain diseases of the skin are more often seen in older patients or in those past middle life. Among the common dermatoses which occur predominantly during senescence or senility are senile angioma, senile sebaceous adenoma, senile verruca (seborrheic keratosis), senile keratoses and basal and squamous cell carcinomata. These lesions are listed in order of their increasing seriousness and importance. Senile pruritus and various types of dermatitis are common in elderly people and often are difficult to manage. Senile skin may be affected by many other less common dermatoses; however, the cutaneous diseases enumerated comprise the majority of dermatologic problems seen in the elderly.

Dr. Netherton is Chief, Department of Dermatology, Cleveland Clinic.

Senile Sebaceous Adenoma

Senile sebaceous adenoma is a term suggested by Nomland[2] for a common benign lesion which occurs most often on the forehead and occasionally on the face of persons past middle life. Prior to Nomland's publication this condition seldom was mentioned in American textbooks and dermatologic literature. Previous authors had considered this lesion to be due to hypertrophy of the sebaceous glands. Nomland observed that this condition resulted from a new growth of acini of the sebaceous glands arising from a lanugo hair follicle. Senile sebaceous adenoma occurs most often on the forehead and at times on the face as a small yellow rounded soft smooth and often umbilicated papule. There are no subjective symptoms. There may be one or several lesions, seldom numerous, and often an associated rosacea of moderate severity while the skin of the face is frequently abnormally oily. Because of the educational program for the prevention of cancer there has been an increase in the number of persons who seek advice regarding this cutaneous lesion. It is benign, not precancerous, and may be removed for cosmetic reasons with the electric cautery or carbon dioxide snow refrigeration.

Senile Angioma

Senile angiomata are angioma-like lesions which occur on the trunk. They are small purplish or bright red and composed of tufts of dilated capillaries in the upper portion of the corium. These lesions are common in persons past sixty years of age; however, it is not uncommon for a few to develop in a person in the early fifties. These ectases are benign and need not be removed except for cosmetic reasons. Electric cautery is an excellent method.

Seborrheic Keratosis (Senile Verruca)

These lesions are sometimes called senile warts. They are common and often numerous. The areas of predilection are the back, shoulders and chest. They frequently occur on the forehead, on the temples, along the hairline of the scalp and on the face, occasionally on the hands, arms and lower extremities. Seborrheic keratoses are more common and numerous in patients past sixty years of age. However, it is not uncommon to see small early lesions on the trunk of individuals near fifty years of age. Early in development seborrheic keratoses are small yellow oily raised lesions with a fine granular surface. As they enlarge they become brown, and when thickened or large, are often black or dark brown. Their surface becomes more verrucous or uneven and may contain comedones or present small depressions. The involved skin is usually oily and occasionally there is an associated seborrheic dermatitis surrounding a group of keratoses. Seborrheic keratoses seldom become malignant. They enlarge by an upward and peripheral growth rather than by invading the corium. This characteristic presents a "stuck on" appearance, the lesions resembling, in this respect, small areas of mud which have been plastered on a smooth surface.

The diagnosis of seborrheic keratosis usually is not difficult. Occasionally a dark brown or black senile verruca closely simulates a benign melanoma or nevus; however, the surface of the keratosis generally presents small depressions, small comedones, or is granular or verrucous. In case of doubt, the lesions should not be cauterized or traumatized, but should be removed by wide excision.

Occasionally, a seborrheic keratosis may be pruritic. However, this lesion is usually symptomless and need not be removed except for cosmetic reasons, in which case electric cauterization is advised. If the cautery point is not too hot, scarring can be prevented.

Senile Keratosis

In contrast to seborrheic keratosis, senile keratosis is a precancerous lesion and occurs most often on exposed surfaces of the body. The face, nose, ears and dorsal surfaces of the hands are areas of predilection. Blondes are most susceptible and exposure to sun and wind are predisposing factors. Senile keratoses are more common in men than in women. They vary in size, are slightly elevated, and pink or light brown in color. The surface is covered by adherent scales or a thin, dry, adherent light brown crust. Surface beneath the crust is usually uneven and may bleed after the crust has been removed. Senile keratosis may remain unchanged for years or enlarge slowly and become transformed into a basal or squamous cell carcinoma. This transformation is accompanied by a mild inflammatory reaction around the lesion as well as an increase in thickness or infiltration of the base of the keratosis.

Since senile keratosis is a precancerous lesion, it should be destroyed. If clinical characteristics

suggest early malignant degeneration, a biopsy specimen should be taken before treatment is instituted. If malignant degeneration has occurred, roentgen ray, radium therapy or surgical removal are procedures of choice. Benign senile keratoses can be removed satisfactorily by electric desiccation or cauterization. It is important that the lesion be destroyed completely.

Cancer of the Skin

Cancer of the skin occurs commonly in individuals past sixty years of age, but may occur much earlier in life. It may develop from normal appearing epidermis, but usually it arises in a senile keratosis. Leukoplakia of the lip and vulva, arsenical keratoses and keratoses of roentgen ray or radium dermatitis, are other so-called common precancerous lesions.

Cutaneous cancer may be divided into three types: (1) basal cell carcinoma, which is often called epithelioma, skin cancer or rodent ulcer; (2) squamous cell carcinoma, and (3) basal squamous cell carcinoma, a mixed type in which both types of malignant changes occur.

Epithelioma is the most common variety. As in senile keratosis, epithelioma occurs most often on the forehead, nose, face, neck, ears and dorsal surfaces of the hands. Epithelioma appears frequently on the nose, near the inner canthus of the eye and near the margins of the eyelids. If neglected, it may result in irreparable damage, with unsightly deformity. Basal cell carcinoma may be a small papule or a large destructive ulcerated lesion.

A common type of epithelioma is a firm, pearly papule or nodule which frequently has telangiectases on its surface. As the lesions enlarge ulceration and crusting often occur. Such lesions are known as rodent ulcers. The ulcer varies in depth, the base is nodular and the margins are rolled and pearly. Epithelioma enlarges by invasion of adjacent tissues and does not metastasize. Morphea-like epithelioma and superficial erythematous epithelioma are less common and differ in their clinical characteristics from the more common type of epithelioma.

Morphea-like epithelioma is a non-scaly superficial yellowish or ivory plaque which roughly resembles a small area of circumscribed scleroderma. It may or may not ulcerate and, as it enlarges by peripheral extension, there may be central involution with scarring. The margins are often poorly demarcated, making it difficult to determine by inspection the exact size of the lesion. Portions of the lesion may consist of small pearly papules. Areas of predilection are the forehead, face and neck.

Superficial erythematous epithelioma usually occurs on the trunk. There may be one or more lesions. Psoriasis and arsenical keratoses are frequent concomitant dermatoses. The lesions are round or serpiginous, superficial, small to large coin-sized, pink or light red, well-demarcated plaques. As the plaque enlarges by peripheral extension, the central portion undergoes partial healing with resultant atrophic scarring. All or portions of the margin consist of a threadlike raised pearly ridge. The scarred portion may be scaly, or have small superficial crusted ulcers. Telangiectases are frequently present on the surface of the lesion. Since this type of epithelioma is apt to occur in psoriatic patients, a cursory examination may result in an erroneous diagnosis of psoriasis.

Squamous cell carcinoma is less common than epithelioma, but more malignant. It grows more rapidly and it metastasizes. The degree of malignancy is not uniform for all squamous cell carcinomas. As in the case of epithelioma this neoplasm usually arises secondarily to a precancerous lesion such as leukoplakia, senile keratosis, or radiation keratosis. Most cancers of lips, vulva, and oral mucous membrane are squamous cell type. It may develop de novo.

Squamous cell carcinoma may be a papillomatous, nodular, cauliflower-like, fungoid or nodular ulcerative lesion, which tends to bleed easily. The base of an ulcerated lesion is thickened because of invasion by malignant cells into adjacent tissues. Margins of the ulcer are rolled, firm, and pink to light red in color. Squamous cell carcinoma is often surrounded by an area of low-grade inflammation.

Basal squamous carcinoma has the clinical characteristics of epithelioma and squamous cell carcinoma. Portions of the lesion consist of pearly papules or nodules while other portions with squamous cell carcinoma have a deeper and more firm infiltration of the skin and subcutaneous tissues. When a suspected basal cell epithelioma metastasizes, it is almost always a basal squamous cell lesion.

It should be emphasized that although the clinical characteristics of cutaneous cancer are well established, a correct classification can be made only by microscopic examination. The prognosis,

as well as the choice of therapeutic procedure, are partially determined by the histopathologic changes. Therefore a biopsy specimen should be taken before a lesion suspected of being cancerous is destroyed, and tissue sections should be made if the lesion is excised.

Treatment of cutaneous cancer is individualized. The method of choice is determined largely by the cellular type, degree of malignancy, the site and size of the lesion, as well as the presence or absence of metastases and degree of invasion and destruction of adjacent structures. Most basal cell carcinomas respond well to roentgen rays or to radium; however, in selected cases excision with plastic repair is indicated. Radiation may be used in selected cases of squamous cell carcinoma, but in most instances surgical excision or destruction of the lesion by chemosurgery is the method of choice.

Senile Pruritus

Pruritus is a common and often annoying complaint of elderly persons. Itching is a symptom and little is known of the mechanism of its production. It is a common manifestation of certain metabolic disturbances, endocrine dysfunction, liver disease, blood dyscrasia and parasitic infestations. Those conditions occur frequently in persons past sixty years of age, therefore diabetes mellitus, azotemia, subclinical icterus, leukemia, Hodgkin's disease, other constitutional diseases and parasitic infestations must be considered as possible causes of pruritus in elderly persons. Frequent bathing and irritation caused by woolen garments worn next to the skin are also important etiologic factors. The term senile pruritus should be restricted to designate essential pruritus affecting senile skin. It is seen more often in men, may be generalized, but more often involves localized areas, with predilection for the extremities. Small blood-crusted excoriations are often the only visible cutaneous manifestations. Itching is likely to be intractable to treatment, more intense in cold weather, and exaggerated by bathing.

Treatment of idiopathic senile pruritus is often extremely difficult. Frequent bathing is contraindicated. A bland soap and tepid water should be used. Soothing applications are indicated—preparations which protect and decrease the dryness of senile skin. A lotion consisting of equal parts of glycerine, ethyl alcohol and peppermint water is an excellent remedy. A more oily preparation, consisting of oil of theobroma 10 per cent in unguentum aqua ros, or a lanolin cream is helpful and pleasant to use. Valuable antipruritics which may be added to these creams are 0.5 per cent phenol and/or 0.12 per cent menthol. Boric acid ointment usually is well tolerated and often of value in the treatment of senile pruritus. Mild sedation for short periods may be required. Antihistaminic drugs are of doubtful value. Multiple vitamins should be administered, as avitaminosis of varying degree is often present in elderly persons. The value of endocrine therapy for senile pruritus has not been determined; however, reports indicate that parenteral administration of 25 mg. of testosterone propionate for men and 1 mg. of estradiol benzoate or other estrogens twice a week are of value in some cases of senile pururitus. This recommendation is in accord with my experience, and I feel that in the management of intractable senile pruritus, a trial administration of these agents indicated.

Dermatitis

The eczema-dermatitis group of skin diseases, which are common to all age groups, comprises the most ordinary complex and distressing dermatoses affecting elderly persons. Because of degenerative changes, dermatitis involving senile skin heals slowly and is often intractable to treatment. Furthermore, severe pruritus disturbs the sleep and prevents rest, thereby impairing the health of a person whose recuperative ability at best is low.

Dermatitis may be caused by multitudinous factors. The mechanism of its production is complex and often obscure. There is also great variance in the clinical manifestations of the common types of dermatitis. The so-called eczema group includes contact dermatitis, disseminated neurodermatitis and seborrheic dermatitis, all of which occur in patients past sixty years of age. Of these, seborrheic dermatitis is seen more often in this age group.

Contact dermatitis may be the eczematous type resulting from acquired specific epidermal sensitivity or may be the consequence of damage due to primary irritants. The hands, arms, face, neck and upper portion of the trunk are areas most often involved. The eruption is usually poorly demarcated, and edema, erythema and vesiculation are often prominent characteristics. Contact dermatitis may involve the covered portions of the body and is frequently caused by dye or other chemicals in garments. The discovery of the cause of contact

dermatitis is often difficult and sometimes impossible. However, a complete and accurate history often provides significant information and, in addition, proper use and interpretation of patch tests often determine the cause of contact dermatitis.

It is doubtful whether atopic dermatitis, of the type commonly seen in young adults, develops for the first time in a person past sixty years of age. However, chronic, dry, thickened, slightly scaly, intensely pruritic dermatitis involving the face, neck, flexoral areas of the extremities and, to a lesser degree, the trunk is not uncommon in this age group. The cause of this type of dermatitis often remains undetermined. In some cases neuropsychogenic factors seem to be of etiologic importance. In some instances lichenification is secondary to a chronic contact dermatitis aggravated by injudicious use of topical remedies. It is also important to consider the possibility of constitutional disease, and ingested drugs as possible etiologic factors.

Seborrheic dermatitis occurs frequently in elderly persons. Its cause is unknown. It is characterized by a superficial, yellowish-pink, scaly dermatitis which usually starts on the scalp as an excessive dandruff. Areas of subacute dermatitis develop on the scalp and along the hairline, on the forehead, in the eyebrows and on the midportion of the face. Seborrheic scaling of the margins of the eyelids is common. The postauricular folds, external auditory canals, and midportions of the trunk are frequently involved. Scales are small, yellowish to gray, oily and loosely adherent. Pruritus may or may not be troublesome. However, in elderly persons, the itching of seborrheic dermatitis is often severe. Seborrheic dermatitis in these patients commonly involves large areas of the trunk and is prone to occur in the axillary and genitocrural regions, beneath pendulous breasts and in folds of the abdomen. It is common for secondary eczematization, due to impetiginous infection, to occur in those areas. Signs of avitaminosis are not unusual. In uncomplicated seborrheic dermatitis, sulfur ointments are of special value. The scalp should be kept free of dandruff. Sulfur precipitate 5 to 8 per cent, salicylic acid 5 per cent, in a water soluble base is an excellent preparation for the scalp. While under treatment, the scalp should be washed twice a week. For the non-hairy areas the same ingredients in petrolatum are usually helpful. Resorcinol 3 per cent may be added. It should not be applied to scalp of elderly patients as it discolors gray hair. Secondary impetiginous infections should be treated with penicillin or other antibiotic ointments before the use of sulfur ointment is instituted. Vioform, 3 to 4 per cent in petrolatum, is also a valuable remedy in seborrheic dermatitis and impetigenized dermatitis.

Infectious eczematoid dermatitis caused by pyogenic organisms occurs as well demarcated, round or polycyclic erythematous scaly vesicular, pustular and weeping plaques, and is another type of dermatitis commonly seen in elderly persons. This type of dermatitis often develops following trauma of a pyogenic infection. It may resemble rounded areas of eczematoid dermatitis which develop chiefly on the legs of elderly patients with azotemia, diabetes mellitus and avitaminosis.

One of the most common types of localized dermatitis seen in elderly persons occurs on the legs and is caused usually by stasis of the venous circulation resulting from thrombophlebitis or varicosity of the veins. Ulceration caused by trauma and secondary pyogenic infection is a common complication of stasis dermatitis.

Guy, Jacobs and Guy[1] have shown recently that hypoproteinemia may be an important factor in the cause of dermatitis of the legs in patients past middle age. Edema of the legs and associated dermatitis disappeared following increased protein intake, administration of protein hydrolysates, vitamins, hydrochloric acid, correction of hypochromic anemia and appropriate topical remedies. The nutritional status of an elderly person may be an etiologic factor or alter the course of other types of geriatric dermatitis.

Occasionally stasis dermatitis, with or without ulceration, becomes complicated by sudden development of a disseminated papular, vesicular and eczematoid dermatitis. The mechanism of production of this type of secondary eruption is not well understood. Some authors call this phenomenon autosensitization. The disseminated eruption is considered to be a manifestation of hypersensitivity to some substance absorbed from the exudate of the ulcer or eczematoid dermatitis on the leg. This complication usually occurs following application of some topical remedy to the leg. Perhaps absorption of a protein conjugate of the remedy is responsible for dissemination of the dermatitis. This phenomenon is not uncommon and may be a troublesome complication of chronic stasis dermatitis.

Exfoliative Dermatitis

Exfoliative dermatitis or generalized erythroderma is a serious eruption which is seen occasionally in an elderly person. All or a major portion of the cutaneous surface may be involved. The intensity of erythema, edema and infiltration of the skin varies with the severity of dermatitis. Desquamation may be slight or profuse. Partial loss of hair is common, and at times the nails are shed. Superficial lymph glands are usually palpable. Chilling caused by excessive loss of body heat and itching are often distressing symptoms.

Exfoliative dermatitis may be of the primary or secondary type. The primary type is rare. The secondary type is more common and frequently develops as a complication of some other dermatosis such as contact dermatitis, psoriasis or drug eruption. During the arsphenamine era arsenic was a common cause of generalized erythroderma. It may be a manifestation of Hodgkin's disease, leukemia or other types of lymphoblastoma. Therefore, the possibility of lymphoblastoma must be considered in all cases of generalized erythroderma.

The prognosis of exfoliative dermatitis in an elderly person is apt to be poor; favorable response to treatment is slow. It is not uncommon for the eruption to last for months. Diseases of the lymphoblastoma group terminate fatally, and with other types the patient sometimes dies of complicating pneumonia or uremia.

Treatment is symptomatic and individualized. Bed rest, proper nursing, and correction of nutritional or deficiency disturbances common to elderly patients are important measures. Topical remedies should consist of bland ointments. Petrolatum or boric acid, 5 per cent in vaseline, is well tolerated. Phenol 0.25 to 0.5 per cent may be added if pruritus is troublesome. A stimulating tar ointment may be used if the dermatitis is chronic. However, tar ointments must be used with caution and are not to be prescribed in the early acute stage of the disease. Evaporating lotions are contraindicated. Soap and water baths are to be avoided. Frequent bathing may be harmful; however, addition of corn starch paste to a tepid bath is often soothing. The skin should be anointed soon after bathing. Cases due to arsenic respond favorably to BAL (2,3 dimercaptopropanol). Roentgen ray therapy and other therapeutic procedures used in blood dyscrasias are indicated in the lymphoblastoma group.

Among other common dermatoses which effect elderly persons are localized neurodermatitis, psoriasis, rosacea, lichen planus, fungus infections and parasitic infestations. Since these cutaneous diseases are not peculiar to this age group, they are not discussed.

Summary

The steady increase in the longevity of the human race has, of necessity, stimulated the interest of the medical profession in geriatric medicine. Cutaneous diseases constitute many of the common and distressing ills of persons over sixty years of age. Certain dermatoses are peculiar to this age group and are manifestations of degenerative changes of senescence, while the clinical course of other skin diseases affecting elderly persons is altered by senile changes in the skin. Furthermore, concomitant metabolic diseases, nutritional disturbance, avitaminosis and/or other systemic conditions influence the clinical course and response to therapy of common types of dermatitis affecting senile skin.

Cutaneous carcinoma, seborrheic keratosis and senile sebaceous adenoma, keratosis and angioma are the most common degenerative cutaneous lesions which occur in elderly persons. Of these, carcinoma and senile keratosis are most serious and important. They should be removed, excised, or destroyed by roentgen rays, radium, desiccation, or by electric cautery. Choice of therapy is not uniform in all cases. The other lesions are removed for cosmetic purposes. They usually can be removed with little or no scarring with electric cautery.

Managament of senile pruritus and common types of dermatitis affecting elderly patients often taxes the ingenuity of the physician. Dermatitis heals more slowly in elderly people and often topical remedies are not well tolerated. Overtreatment and injudicious use of irritating remedies are common errors. The choice of topical remedies, as in all age groups, depends upon the severity and acuteness of the inflammatory reaction. Moist compresses and evaporating lotions are indicated in acute edematous vesicular dermatitis, while bland ointments are most useful in subacute dermatitis. Tar ointments are especially valuable in dry chronic dermatitis.

Roentgen ray therapy is helpful but must be used with caution and only in selected cases.

Due consideration of concomitant systemic and

(Continued on Page 519)

Kala-azar

Report of a Case and Brief Review of Recent Literature

By Thomas A. McInerney, M.D., and Robert E. Ryde, M.D.

Escanaba, Michigan

IN MAY, 1947, Ecker and Lubitz reported that up to that time only nine cases of kala-azar (black fever, Daukalin, dumdum fever, or Leischman-Donovan's disease) had been diagnosed in the United States. In 1948 Wilner and Haedicke reported a case in which several relapses took place before the final cure was effected. Duffy and Davidson in 1949 added three more cases to the total number reported in the United States. Prior to 1933 only four cases of the disease were reported in the United States. This case is therefore, so far as can be determined, the fourteenth reported in the United States and the first ever reported in Michigan. Strangely enough, the subject of the report was never in the Armed Services as were the subjects of previous reports rendered in the literature from 1942 on.

Since during World War II, many of our servicemen were stationed in areas where this disease is endemic, we should be on the lookout for this condition in such former military patients who have served in endemic areas whenever they exhibit prolonged fever with splenomegaly and hepatomegaly, leukopenia, and anemia—conditions with similar findings being eliminated from the picture. Furthermore, with the increase of air travel, the disease might become more common in the United States than it is at the present time.

Kala-azar is defined in the textbooks as an infectious disease which has as its characteristics progressive splenomegaly and sooner or later a hepatomegaly, long-continued fever, profound leukopenia, and marked anemia with continuous loss of weight and strength and a downhill course until the patient succumbs usually, with intercurrent infection, in two to three years. The disease is caused by a protozoa body which can be found in the cells of the reticulo-endothelial system. It is endemic in Eastern India, Bengal, Bihar, Assam, and Madras, North China, the Mediterranean Countries, and the African Sudan (a particularly virulent type is reported as coming from this locality), West Africa, Iraq, South Russia, and Turkestan.

It is commonly believed that the vector of transmission is the sand fly *(Phlebotomus argentipes)*.

The pathological picture is one of invasion of the reticulo-endothelial system by the Leishman-Donovan body. The parasite engorges the cells of the system until they burst, flooding the blood stream with the organism. The disease causes such a multiplication of the cells of the reticulo-endothelial system and also of the Kupfer cells of the liver that these organs enlarge rapidly to huge proportions. Later, in the course of the disease, the kidney and practically all organs of the body are affected.

The incubation period of the disease is not known, but it is commonly held to be from six weeks to four months, though an incubation period as short as ten days has been reported. It is insidious in its onset, which usually is with a fever, high and continuous or remittent, and accompanied by chills. One characteristic of the fever is that if the temperature is taken at frequent intervals, it will be seen that the temperature spikes twice daily, leading to the Indian appelation "Daukalin" or double-rising fever. After the fever has been present for a short time, the spleen enlarges and can be palpated. Periods of remission and exacerbation occur.

Accompanying these symptoms is a progressive loss of weight, strength, and appetite and in about 50 per cent of the cases epistaxis and bleeding from the gums. Hematologically the picture is one of anemia, leukopenia (1,000 or less) and thrombocytopenia. Blood chemistry studies reveal reversal of the serum albumin-globulin ratio without change in serum protein level. The diagnosis is made definitely only by demonstration of the Leishman-Donovan body in smears from the blood, liver, spleen, lymph glands, bone marrow; or by culturing it from the blood. There are, however, several presumptive tests such as the formol-gel and antimony tests. In the differential-diagnosis of the disease, it is necessary to consider all diseases characterized by fever, splenomegaly, hepatomegaly, leukopenia, and anemia. Among these are malaria, infectious endocarditis, schistosomiasis, lues, typhoid, rickettsias, and infectious mononeucleosis.

Treatment is specific with pentavalent antimony, Enostam or Neostibosan, daily by intravenous in-

From the Medical Service of St. Francis Hospital, Escanaba, Michigan.

jection until three grams have been given, which course of treatment usually requires about eleven days and generally suffices to cure the disease.

Case Report

The subject of this report is J. S., an eighteen-year-old white boy, the son of missionary parents. He was born in India and, except for one visit to the United States, spent his entire life there. Most of his time in India was spent at school in eastern Punjab in the Himalayan foothills. His only visits to the plains of Bengal were during school vacations and these always in the cool seasons. His past history was negative except for two attacks of malaria.

He left the Punjab about the middle of March, 1950, en route to Calcutta to board ship to come to the United States for the purpose of attending college. Between March 15 and April 5, when he arrived in Calcutta, he visited with friends at Jamshedphur, Bihar, and in Bengal. These are areas where kala-azar is endemic. Prior to leaving Calcutta, on April 9, he was given a complete physical examination by the port health doctor. He traveled on a slow ship and the voyage was leisurely by way of the Straits Settlements, Hong Kong, Yokohama, and Manila, and he arrived in San Francisco on May 23. He remained in San Francisco two days and resumed his trip by bus to Chicago, arriving May 28. He stayed one week in Chicago and then traveled again by bus to Grand Rapids, Michigan, to visit his grandfather and aunts (June 4).

One week later, June 11, he noticed that his appetite, hitherto excellent, was failing, and he began to have severe headache, chills, and fever. At one time his aunt took his temperature and it was 105° Fahrenheit orally. A chiropractor living next door gave it as his opinion that the boy had malaria and treated him by manipulation for one week.

He then became concerned and told the family he would call in a physician. He called in an osteopath who diagnosed the condition as malaria and removed the boy to the Grand Rapids Osteopathic Hospital.

He remained in the Osteopathic Hospital about three and one-half weeks. Numerous tests were made, and he was given courses of treatment with atabrine, quinine, penicillin, sulphonamides, chloromycetin, and finally Aureomycin. At this time he apparently had a remission (which is characteristic of the disease), and he was discharged home (apparently with no diagnosis) as cured. After returning home, he remained in bed for one week. Howver, he did not feel well and had chilly sensations despite the warm weather prevalent in Grand Rapids during the month of July. One week after getting out of bed, he came to this community to visit relatives residing here.

Two weeks after his arrival in this community he became ill, having intermittent, dull, throbbing, occipital headache, persistent fever, nonproductive cough; and no matter what measures he took to do so, he could not keep warm.

The patient was first seen August 2, 1950. A physical examination at that time revealed a temperature of 104°, pulse rate of 96, and respiration of 20. His spleen was enlarged 4 centimeters below the costal margin. The liver was not palpable. A smear made for malaria at this time was negative, however, on the basis of the previous malarial history and physical findings, diagnosis of malaria was made and Guanatol (Lilly) was prescribed, this drug having been previously used with good results in malaria. The patient was not seen again until one week later. At this time the physical findings were essentially the same and there was a slight increase in splenomegaly. The temperature was 106°, the pulse rate 104, and respiration 22 per minute. A blood smear made on admission was reported as positive for malarial parasites and the initial urinalysis showed albuminuria. Blood count (red cells) was 3,500,000, hemoglobin 71 per cent. The white blood count fluctuated throughout his stay in the hospital, reaching its lowest at 1,550 and its highest at 4,100. Daily blood counts were made; the lowest was 3,062,000 and the highest 3,590,000, and hemoglobin ranged from 68 to 71 per cent. A chest plate made on admission because of persistent cough was negative as were sputum samples. The patient was put on a regime of quinine grains 10 three times daily. On the second day following admission to the hospital, his temperature began to show a steady decline until the sixth day following admission to the hospital when it reached 98.4° during the early morning hours, only to rise that afternoon to 101°. From this time on the patient's temperature never again dropped below a basal level of 101.2° until specific therapy was instituted. Blood cultures were made, all of which failed to show any growth. The Widal test for typhoid and paratyphoid was positive in a titer of 1 to 320 and 1 to 40, respectively. However, this could not be considered significant because the patient had received immunization against typhoid fever practically every year since birth, and blood cultures for typhoid were negative. An agglutination test for undulant fever was likewise negative. A sample of blood was sent to the rickettsial laboratory of the United States Public Health Service at Hamilton, Montana, and all reports of tests for Rocky Mountain spotted fever, tularemia, undulant fever, epidemic and endemic typhus, and rickettsialpox were negative. The laboratory at Hamilton reported a low complement fixation against typhus but here again previous repeated immunization played a role. Repeated examination of stools for parasites and Entamoeba histolytica were negative. Tests for Schistosoma in the stools and urine were likewise negative. Electrocardiograph tests and sinus x-rays were normal. The serum albumin-globulin ratio was not reversed, and the blood calcium level was 9.45 grams. Repeated physical examinations of the patient were negative except for a progressive enlargement of the spleen, and his only complaints were persistent cough, lack of desire to eat, and headache. However, he was usually cheerful, and there was a noticeable brightness of the eyes, which seemed literally to glisten; marked emaciation, the shining skin, and somewhat protuberant tympanitic abdomen were noted. Repeatedly, auscultation of the abdomen revealed normal persistalsis. There was no constipation or diarrhea.

Since practically all diseases with the symptoms of

splenomegaly, fever, et cetera, had been eliminated, the possibility of kala-azar came to mind, and presumptive tests such as the formol-gel and antimony tests were done and found negative. The serum albumin-globulin ratio was again found normal and blood calcium was likewise within normal range. An attempt to culture Leishman-Donovan bodies from the blood was negative.

The temperature was now ordered taken every three hours, and it was noted that each day the temperature would arise from a basal level of 101° to 103° or 104° at least twice. As mentioned before, this is also characteristic of kala-azar and a feature of the disease. A bone marrow sample was then taken, but the parasite was not found. Permission for splenic puncture was sought (the dangers of such a procedure being explained to the parents), and while it was not directly refused, neither was it forthcoming. It must be remembered that this boy is the only son of middle-aged parents. Since all tenable diagnostic leads had been followed and found barren of results and since the evidence at hand (emaciation fever, splenomegaly, persistent cough, anemia, and leukopenia) was strongly in favor of kala-azar, despite the negativity of the tests and despite the fact that parasites had not been found, it was felt that a therapeutic test using the specific drug would be justified as a means of settling the question. Therefore, on August 24, 1950, he was given the first dose of Neostibosan intravenously, and this was repeated daily for eleven days until September 3, 1950.

At the time of the first dose of Neostibosan the temperature was 104° Fahrenheit orally, the pulse was 94, and the respirations were 20 per minute; and from this time on, the temperature began to drop steadily until between the sixth and seventh day of therapy it reached 97° following which it never again rose above normal, in fact, the greater part of the time being at subnormal levels. The pulse rate, which had been at its peak at 120 per minute, varying between this figure and 70, came down to 76 per minute. The respiratory rate dropped down to 18 per minute. The spleen also rapidly decreased in size from 9 centimeters until it became almost completely impalpable. The patient's appetite became ravenous, and he began to demand food between meals. His weight increased, and on September 5, 1950, twenty-six days after admission, he was discharged from the hospital afebrile, feeling better than he had felt in months.

The next opportunity to see the patient presented itself two weeks after dismissal from the hospital. He was at that time, and had been, afebrile. The spleen was no longer palpable, and he was eating like an eighteen-year-old should and had gained 12 pounds in weight. The case has since been followed by correspondence. He entered college and has remained in good health, being checked at intervals by the college health service.

Conclusion

The incubation time of the disease in this case has been about two and one-half months, assuming that the first exposure took place in March during the visits in Bihar and Bengal.

1. It would seem that the positivity of the presumptive test depends on the reversal of serum albumin-globulin ratio, and such a reversal was not found in this case.

2. The same may be said of the absence of hepatomegaly. It may be a late feature of the disease.

3. In the absence of a positive blood culture or bone marrow smear or because of withheld permission for splenic puncture, because of the dangers involved, the diagnosis of kala-azar by a therapeutic test may be a rational procedure for diagnosis as it is in malaria.

4. The red blood cell count was never found to be lower than 3,260,000, which is in marked contrast to the low red counts reported in other cases. The red cell count found in other reports might also indicate that the other cases were further advanced in their course than this one, and that the profound anemia reported in other instances might likewise be a late feature of the disease.

5. The fever dropping after quinine may be indicative of co-existence of the two diseases (malaria and kala-azar).

Summary

A case of kala-azar, the fourteenth of its kind in the United States and the first, so far as can be determined, in non-former military personnel since the beginning of World War II, is reported. It is felt that splenic puncture may sometimes be dangerous and other methods of diagnosing not satisfactory in disclosing the presence of parasites, and therefore, treatment with the specific drug is a valid and valuable way of making the diagnosis. Kala-azar should always be considered as a possibility in any person coming from areas where it is endemic, exhibiting persistent fever, persistent cough, splenomegaly, anemia, and leukopenia as well as progressive emaciation, with or without skin pigmentation. The protuberant abdomen, the shining skin and the bright, glistening eyes, once seen, will always remain in the memory of the observer.

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A Review of Endometriosis

Summary of Thirty-two Cases at Hurley Hospital

By Jack W. Thompson, M.D.
Flint, Michigan

ENDOMETRIOSIS is a disease entity which has rightfully received much thought and study during the past few decades, and it is the purpose of this paper to present some results of the various investigations, theories, and clinical data now prevalent in the medical literature. Endometriosis is not strictly an inflammatory condition, nor is it a true neoplastic tumor. However, it is a disease demonstrating tissue having the appearance of endometrium outside the proper site for such endometrium, i.e., in a location different from the mucosal lining of the uterine cavity. Despite the apparent benignity of this disease, it is capable of widespread involvement[70,71] and is becoming a much more frequent diagnosis at pelvic laporotomy.[15]

"The etiology of endometriosis cannot be satisfactorily explained by any one theory . . ."[65] Fr. Von Recklinghausen [9,36,42] advanced a theory in 1895-1896 of activation of Wolffian body remnants. Cullen[9,36] followed in 1896 with his Mullerian duct hypothesis. In sequence, Kossman[9] in 1897, Ivanoff[9 36,42] in 1898, Sampson[9,36] in 1921, Halban[9,36,42] in 1924, and Heim[36] in 1933 all set forth various ideas, the best known being Sampson's "menstrual regurgitation" and Heim's "coelosis" theories. Sampson [77-86] stressed that endometriosis was caused by ectopic endometrium, which "at times escapes into the peritoneal cavity from or through the fimbriated end of the tube . . . . and lodges where such material would be likely to fall, especially on the lateral surface of the ovary, on its free border, and in the cul-de-sac . . ."[79] Heim believes in Iwanoff's serosal-epithelial theory but states that embryonic mesenchyme is the mother tissue. In brief, Ranney[74] explains the theory on the basis of embryonic celomic cells retaining the potentiality of forming tissue indistinguishable from endometrial tissue.

Whether called endometriosis, adenomyosis, adenosis, Mullerianosis, endosalpingiosis, endometrioma, et cetera, and whatever the etiology, this disease is one in which tissue similar to endometrium is found in various locations outside of the normal. "The invasions and disseminations of benign endometrial tissue employ the same channels as the invasions and disseminations of cancer."[81] Bits of this tissue in some way reach the various portions of the pelvis, especially the ovary, and if it is actually uterine mucosa, a reaction to hormonal stimulation will occur. Novak[68] describes the histological features, stating that microscopically the tissue is endometrial-like, having glands, epithelium and stroma. The latter, however, may be poorly marked or absent, and portions of the wall of the lesion may have lost the endometrial lining. A characteristic feature is the presence of a broad zone rich in large phagocytic cells laden with blood pigments, just beneath the degenerating endometrium or in place of this. These cells are "endothelial leukocytes or pseudoxanthoma cells."[68] These are large and polyhedral, resembling lutein cells. This, he concludes, is almost diagnostic even in the absence of typical epithelium or gland formation. One may find the same picture as within the uterus, namely, scalloping and tortuosity of glands with a cyclic reaction corresponding to the uterine endometrium. There may be a secretory reaction or a proliferative type which is immature or unripe and not capable of full cyclic response. Often the typical Swiss cheese hyperplasia is found.

There are two types of endometriosis—internal and external. The latter is the type most often discussed, and includes that which occurs outside the uterus in the ovaries, pelvic ligaments, umbilicus, abdominal scars, et cetera. The internal type is often called adenomyosis, and is a benign invasion of endometrium into the uterine musculature. The uterus may be slightly or markedly enlarged, and often has thick walls. Commonly there is an adherence of this organ to the surrounding tissues. In cross section, there is seen a diffuse asymetrical increase in the size of the wall. There may be dark brown hemorrhagic areas or even small chocolate cysts within the myometrium, which are soft spongy areas of endometrial-like tissue. However, stroma only with no glandular formation may be all that is present. The normal endometrium may not be unusual, but often it is thickened and polypoid. Usually in internal endometriosis the cyclic changes are not as marked as in the external type. Very often the diseased areas show a proliferative type endometrium, while the normal endometrium

From the Department of Obstetrics and Gynecology, Hurley Hospital, Flint, Michigan.

is secretory in type. It seems that this particular ectopic endometrium responds only to the estrogenic hormone.

The misplaced tissue is governed by the same physiological laws in relation to menses, pregnancy, and menopause as the mucosa lining the uterus.[45] The ovary seems to be the most favorable site for growth in external endometriosis. Here one may see lesions varying in size from a few milimeters to several centimeters in diameter. There may be bluish-black areas on the surface, or larger cystic portions, which, when incised or ruptured, reveal a thick, chocolate-colored substance. It should be remembered, however, that such chocolate-colored cystic fluid is not pathognomic of endometriosis, as a cystadenoma, follicular cyst, or corpus luteum cyst may also show a similar fluid. In the smaller endometrial cysts, adhesions are formed each time the cyst ruptures. At the next cycle, additional pressure is needed for rupture. In time, if the pressure becomes sufficient to destroy the endometrial-like tissue, activity ceases. This serves to explain why the surgeon often finds many adhesions without other demonstrable evidence and with the patient presenting fewer complaints after the disease has been active for some time. Very often, however, a fragment of ectopic endometrium is released when the cyst ruptures, and new implantations occur. Sampson[77] in his original article states that such cysts are endometrial in origin because the disease as well as the ectopic lesions are active during the menstrual life of the patient, and the epithelial lining of such ovarian hematomas is similar to that of uterine hematomas. Periodic hemorrhages resembling old menstrual blood occur, and the histologic changes in the implants often correspond to the phase of the menstrual cycle of the patient. Other locations for external endometriosis, resulting from new implantations from rupture of an ovarian endometrial cyst, formed from the backflow of endometrium through the tubes, or arising as new growths of celomic epithelium include the serosal surface of the uterus, tubes, the pelvic ligaments (especially the uterosacral ligaments), plevic and abdominal peritoneum, intestines, and omentum. In the extraperitoneal areas one may find endometrosis in the cervix, vagina, rectovaginal septum, vulva, inguinal canal, umbilicus, bladder, abdominal wall scars, lymph nodes, and even in the thigh and arm.

Adenomyosis in this country is more frequent than endometriosis (external). One series of cases[22] gave 49.6 per cent internal endometriosis (adenomyosis), 36.5 per cent external endometriosis, and 13.9 per cent having a combination of both. Yin[101] found external endometriosis was three times as frequent as adenomyosis. In our own series, 84.4 per cent was of the external variety, 6.25 per cent internal, and 9.35 per cent both.

It has been said that if a patient who is over twenty-nine years of age complains of an increasing dysmenorrhea plus an increase in her menstrual flow, together with some symptoms of pelvic inflammatory disease and sterility if married, the attending physician should seriously consider endometriosis. Holmes[42] gives a tabulation of the various symptoms as follows:

Dysmenorrhea, acquired	66.2%
Mennorrhagia, metrorrhagia, polymenorrhea	64.9
Sterility	46.5
Abdominal pain	42.5
Constipation, obstipation	30.0
Sacral back pain	28.7
Nervousness	21.2
Pressure in pelvis	20.0
Bladder symptoms	15.0
Pain referred to hips, thigh, groin	13.7
Rectal pain	7.5
Dyspareunia	7.5

It is important to recognize that the dysmenorrhea is of the acquired variety, and it generally increases as time goes on. The location of the pain, whether in the pelvis, back, rectum, et cetera, does not necessarily indicate the site of the maximum number or size of the lesions. Payne[70] states that more than half of the patients have abnormal menses. It is interesting to note that in direct or internal endometriosis (adenomyosis) there seems to be more menorrhagia and metrorrhagia and the dysmenorrhea is not constant. This can be explained on the basis that this type of lesion probably does not participate regularly in the menses Adenomyosis can be suspected in multiparous women over thirty-five years of age with profuse uterine bleeding and no demonstrable pelvic pathology. Fallas and Rosenblum[22] reported 260 cases and compared the dysmenorrhea and excessive bleeding, showing the former to be greatest in external endometriosis and the latter greatest in the combined type. There was, however, a distinct difference between excessive bleeding in the external and internal types, being greatest in the latter. In the series of cases reviewed at Hurley Hospital (Flint, Michigan), the average age of the patient was 34.5 years, and tabulation of the various symptoms revealed the following:

Thirty-two Cases Reported from July, 1945, to July, 1950

Symptom	Number Patients	Per Cent
Lower abdominal pain	15	47.0
Irregular menses	12	37.5
Dysmenorrhea	4	12.5
Pressure in pelvis	2	6.3
Backache	2	6.3
Vaginal discharge	2	6.3
Nervousness	1	3.1
Melena	1	3.1

Aside from the various symptoms described above, there are several physical findings which are suggestive of endometriosis. At pelvic examination, a rough, somewhat shotty feeling to palpation in the cul-de-sac may indicate endometrial implants in that area. There may be a moderate fixation of the structures in the pelvis, especially the lower uterine segment. The uterus may be moderately and diffusely enlarged, and often a shallow, thickened and nodular vaginal vault will be found. Quite commonly there is retrodisplacement of the uterus with a distinct lack of mobility. The ovaries are enlarged and adherent, but usually there will be no history of pre-existing infection. There will be found a shortening and increased sensitivity of the uterosacral ligaments. In general, the pain experienced by the patient on pelvic examination is out of proportion to the findings. If the disease has attacked the cervix, vagina, vulva, or umbilicus, small bluish cysts may be seen, which, at the time of the menses, become swollen and tender and may even discharge a few drops of blood. Still other implants, such as in the inguinal region, may also swell at the time of the menstrual period and present a fairly definite tumor mass. At operation, one may fine cysts of the ovaries containing a chocolate-colored fluid as well as many adhesions. Small bluish to purplish spots may be visible on the surface of the ovaries, broad ligaments, uterus, or bowel. Blood as well as the chocolate fluid may be found within the abdominal cavity. Because of the adhesions, implants, and the puckering of tissue, scarring occurs in the paracervical tissues and about the rectosigmoid area particularly. Care must be taken in dissection not to enter the bowel or ureters. With the latter, especially, improper mobilization of the uterus, together with the scar tissue, causes the ureters to be displaced upward and often much closer to the cervix than normally found. Commonly coexisting with endometriosis, according to Counseller,[13] is leiomyoma of the uterus, which he found in 54.5 per cent of all cases. Fallas and Rosenblum[22] discovered 45 per cent leiomyomata, and Holmes,[42] 53.7 per cent. A common associated lesion also is endometrial hyperplasia. The clinical findings at surgery in our group of cases were:

Finding	Number Patients	Per Cent
Chocolate cysts of ovaries	10	31.25
Ovarian cysts, simple	10	31.25
Leiomyoma	7	21.90
Endometrial pelvic implants	6	18.75
Pelvic inflammatory disease	3	9.38
Retroversion of uterus	2	6.25
Hydrosalpinx	2	6.25

And one patient each (3.13 per cent) had a finding of endocervicitis, cervicitis, and salpingitis. The microscopic pathology of our various cases revealed the following:

Pathology	Number Patients	Per Cent
Endometriosis of ovaries	22	68.8
Adenomyosis	6	18.75
Salpingitis	9	28.1
Leiomyoma	6	18.7
Endometriosis of broad lig.	5	15.6
Involutional atrophy of uterus	3	9.4
Endometriosis of tube	2	6.3
Oophoritis	2	6.3
Hydrosalpinx	2	6.3

And one patient each (3.13 per cent) had endometriosis of the uterosacral ligaments, endometritis, cystic ovaries, chronic appendicitis, placental tissue, and carcinoma of the uterus. It is interesting to note that we also found thirty-one additional cases of so-called chocolate cysts of the ovaries without microscopic evidence of endometriosis.

With all of the above described signs and symptoms together with a careful history, one should suspect endometriosis. However, in a differential diagnosis the physician must consider a ruptured ovarian hematoma or follicle, uterine myoma, chronic subinvolution, ectopic pregnancy, appendicitis, ovarian carcinoma, ruptured duodenal ulcer, tube-ovarian abscess, carcinoma of the rectosigmoid colon, and pelvic inflammatory disease.

The treatment of endometriosis must of necessity be divided into a medical regimen or surgical removal. According to Meigs,[62] the medical treatment is not as yet of great importance. Testosterone stops the disease by inhibiting the action of the pituitary gland as far as follicle stimulating and lutinizing hormones are concerned. There is cessation of the ovarian-uterine cycle. He states that this may directly counteract the effect of estrogen

on the proliferating cells of the endometrium also. Hirst[40] states that testosterone will not cure endometriosis, exerts little if any regressive effects on the implants, and definitely has only a temporary action. Estrogenic hormones in large doses will accomplish the same end result, but caution must be exerted in the menopausal patient for fear of stimulating the implants. Meigs[62] believes that endometriosis is the result of some abnormal physiology and not a true disease or tumor. According to Beecham,[6] endocrine therapy deserves much further consideration.

Meigs[62] also believes that earlier marriages with the production of more babies, especially in the higher intellectual groups, is good treatment in itself. Various investigators[6,60,62,88,90] have found the percentage of endometriosis in ward patients from 8 to 12 per cent and in private cases from 26 to 35 per cent. Often endometriosis is found in a patient who has had one or two children, and then a period of several years without a pregnancy. Radium or roentgen therapy may be used in the treatment of endometriosis. Dannreuther[18] believes that intra-uterine radium is best for adenomyosis. With x-ray, subcastration doses are usually insufficient to cause relief. However, as mentioned by Sutton,[95] many clinicians do not like to use x-ray therapy prior to operation because of the possibility of error in diagnosis. An absolute diagnosis is rarely made prior to operation, and patients are usually operated for some other pelvic condition. About 50 per cent of all patients have had previous surgery. In general, the treatment is conservative, whether medical or surgical, under the age of forty and radical over this age. Randall[73] says appropriately, "It is not necessary to castrate women indiscriminately because of endometriosis." It is true that cessation of ovarian function will cure the disease, but often, "hysterectomy, like pregnancy, interrupts the menstrual function and this alone seems to be beneficial."[73] Resection of portions of one or both ovaries often relieves the patient. Presacral neurectomy in selected patients may help, but usually only in adenomyosis, for this nerve distribution is such that resection would not help those with ovarian or broad ligament pain. In extensive disease or in women past the childbearing age, radical surgery is indicated. If, however, extensive adhesions are present, it will suffice to perform a subtotal hysterectomy (together with a bilateral salpingoophorectomy) rather than run the risk of severing the ureter near the cervix or perforating the bowel. The endometrial cells invade the muscular wall of the intestine and peritoneum, and the lesions cannot be separated easily. This accounts for the high incidence of fecal fistulae. One group of investigators[22] found the total amount of conservative surgery was twice that of radical procedures. However, 93.1 per cent of cases of endometriosis was not suspected or diagnosed preoperatively. With conservative surgery, 63.6 per cent were relieved entirely and 36.4 per cent relieved to a great extent. With radical surgery, the corresponding figures were 90.9 and 9.1 per cent, respectively. In our series of cases, conservatism with resection of portions of the ovary, removal of one ovary, et cetera, was carried out in 53.1 per cent. Radical surgery with bilateral salpingoophorectomy, hysterectomy, or both was done in 47.0 per cent. In this latter group, all patients but two were over forty years of age. Roentgen therapy was used in one case. It is evident that in the younger age group, medical treatment or conservative surgery is the treatment of choice in hopes that the patient will become pregnant. A subsequent operation will probably be necessary, and although the odds for a pregnancy are long, these patients can and do become pregnant. Radical surgery in older women is employed, for, with the removal of the ovarian stimulus, the endometrial implants will regress and cease to function in a cyclic manner.

Prophylactically, various pathological conditions should be remedied. Cervical strictures or stenoses should be opened, polyps removed, and retroversions corrected. Rough pelvic examinations, especially near the menses, should be avoided. Rubin tests just before or just after a calculated menstrual period or after a dilatation and curettage should be eliminated. The use of vaginal or uterine packings, unless absolutely necessary, and of the Hegar-type dilator should be discontinued. With the uterus upright and in correct position, obstructions will be eliminated and free drainage will result. All of the above, in theory, will help to prevent the backflow of blood through the tubes into the abdominal cavity. According to Dannreuther,[18] if Sampson's theory is correct, the plugging of the vaginal outlet with cotton tampons during the menses should be another causative factor in endometriosis.

An attempt has been made to summarize the current knowledge concerning endometriosis, giving the various theories of etiology, probably patho-

genesis, signs and symptoms, and treatment. Sampson's theory of retrograde menstruation together with the celomic hyperplasia theory of Meyer, Heim, and others seem to be the most probable causes of this disease at present. It seems fairly certain that the implants outside the uterus are affected by a hormonal stimulus and function in a manner similar to that of endometrium. The chief symptoms, according to the literature, are a progressive dysmenorrhea with menstrual irregularities and a relative sterility. In our study, however, lower abdominal pain ranked first and menstrual irregularities second. The majority of reports show the most common site for this disease seems to be within the uterine musculature (internal endometriosis or adenomyosis), while the second most common location is in or on the ovary (external endometriosis). Again, our study differed in that the external type was far more prevalent, the most common site being the ovary. Conservative therapy is indicated in the young women within the childbearing age, and radical surgery with extirpation of the ovaries and uterus is the best treatment in the older age group.

309 Kresge Building

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Congenital Paralysis of the Inferior Oblique

By Harold Whaley Brown, M.D.
New York, New York

CONGENITAL PARALYSIS of the inferior oblique is the rarest of any of the isolated ocular muscle insufficiencies.

A study of eleven such cases (illustrated in detail in an accompanying motion picture) revealed a structural anomaly in nine that has not been previously described in the literature. All eleven cases showed a complete paralysis of one or both inferior obliques, as evidenced by a failure to obtain voluntary elevation up to or above the horizontal plane with the affected eye in the fully adducted position. In nine of the cases, elevation was thus limited even by manual methods as fixation forceps at operation or preoperatively under a local anesthesia. Both the voluntary and manual elevation increased as the eye moved toward the primary position with full elevation when the eye reached the mid-line position.

The restriction to manual elevation proved to be due to a congenitally short anterior sheath of the homolateral superior oblique. In five of the cases that were operated on, the superior oblique was exposed, the sheath dissected free from the tendon and cut transversely. This procedure resulted in free manual elevation in the previously restricted field.

The tendon sheath of the superior oblique normally acts as a check ligament for the inferior oblique. Anatomically it has a fixed attachment to the pully and periosteum in this region and at the insertion of the superior oblique. As the insertion of the superior oblique is posterior to the center of rotation of the eye ball, the distance between it and the pulley will increase as the eye is adducted or elevated and decrease as the eye is abducted or depressed.

The following clinical characteristics seem to warrant the name of superior oblique tendon sheath syndrome to this type of congenital inferior oblique paralysis:

1. Complete paralysis of the inferior oblique

(Continued on Page 549)

Presented at the eighty-fifth annual session of the Michigan State Medical Society, Detroit, Michigan, September 20, 1950.

Detroit Physiological Society

MEETING OF DECEMBER, 1950

The Use of Small Bowel Segments as Ureters

Don MacLean and Charles G. Johnston,
Department of Surgery
Wayne University College of Medicine

Published by title only.

The Formation of Prothrombin Derivatives from Purified Prothrombin

Walter H. Seegers, Edna B. Andrews and Robert I. McClaughry
From the Department of Physiology and Pharmacology,
Wayne University College of Medicine

Purified prothrombin can be activated slowly by dissolving the protein in a 25 per cent solution of sodium citrate. The activation takes place during a period of about twelve hours. During that time, it is possible to follow the activation with quantitative analytical techniques, including electrophoresis analysis.

The activation of prothrombin can be blocked by adding small amounts of 3, 4, 4'-triaminodiphenyl sulfone to the prothrombin dissolved in 25 per cent sodium citrate solution. This not only blocks the activation of prothrombin but causes it to be transformed into a derivative which is not sensitive to activation by the biological activators calcium plus thromboplastin plus Ac-globulin. This thus represents a derivative of prothrombin not heretofore described. Another derivative can be formed by adding 3-chloro-4, 4'-diaminodiphenyl sulfone to purified prothrombin dissolved in 25 per cent sodium citrate solution. Under such circumstances a derivative which is refractory to the action of calcium plus thromboplastin plus Ac-globulin forms within the first thirty minutes. This derivative transforms into a state which can be activated by calcium plus thromboplastin plus Ac-globulin. It may be an intermediate in the formation of thrombin and it may be that prothrombin always undergoes such alterations before it becomes thrombin.

Observations on the Bone Marrow in Hyperthyroidism and Hypothyroidism

Arnold R. Axelrod, M.D., and Lawrence Berman, M.D.
From the Departments of Medicine, Pathology and Anatomy, Wayne University College of Medicine and City of Detroit Receiving Hospital.

The relationship between bone marrow activity and thyroid gland function has not been studied adequately. Our investigation of thirty-seven patients with hyperthyroidism and hypothyroidism based on blood and bone marrow studies, includes quantitative analyses of megakaryocytes, fat and cell content of histologic sections of aspirated marrow obtained during life.

The blood changes in hyperthyroidism do not form a constant pattern. However, changes in the peripheral blood observed experimentally and in some patients with hyperthyroidism may be due, in part, to excessive hemolysis. The bone marrow in hyperthyroidism exhibits hyperplasia of all myeloid systems with extension of the marrow organ. The most significant change in the differential pattern of the marrow is relative lymphocytosis which may reach levels considered typical of chronic lymphatic leukemia.

In hypothyroidism the usual blood changes include macrocytic anemia and normal or slightly diminished leukocyte and platelet counts. In the bone marrow there is hypoplasia of all myeloid elements which may or may not be accompanied by a reciprocal increase of fat content. Hypothyroidism should be strongly considered in any patient having hypocellular marrow with macrocytic anemia.

MEETING OF JANUARY, 1951

Relation of Sodium Chloride Depletion to Urine Excretion and Water Intoxication

William R. Bristol
Wayne University College of Medicine

Published by title only.

Lymph Drainage of Greater and Lesser Omenta Including the Stomach

DAYTON O'DONNELL
Providence Hospital

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Cardiodynamic Effects of Mitral Commissurotomy

E. R. MUNNELL, M.D. (by invitation) and
CONRAD R. LAM, M.D.
Henry Ford Hospital, Detroit

Twelve patients with severe mitral stenosis have been operated on with the purpose of opening the valve by the method of Bailey and his associates (commissurotomy). The operative exposure of the heart and great vessels has given a good opportunity for a study of the pulse patterns of the left auricle and pulmonary artery before and after the incisions into the stenotic valves.

An impedance gauging system developed for recording biologic pressure variables (Hathaway system) was used to obtain the pressure patterns. The gauges were activated by inserting a medium bore needle attached directly to the gauge into the chamber to be studied. Moment to moment changes in pressure were observed during the operations on a monitoring oscilloscope and tracings were made on a photographic recording oscillograph for later consideration.

The typical contour of the pulmonary arterial pressure curve has thus been obtained with greater accuracy than has been possible by catheterization. The left auricular pressure patterns have varied depending on the degree of stenosis and the presence or absence of auricular fibrillation or unsuspected regurgitation. The degree of successs attending operative intervention of the mitral valve has been predictable by a study of the post-commissurotomy tracings.

MEETING OF FEBRUARY, 1951

The Biosynthesis of the Plasma Proteins—Fact and Fancy

LEON F. MILLER, Ph.D., M.D.
Department of Radiation Biology, University of Rochester, School of Medicine and Dentistry, Rochester, New York

A brief historical survey of the organs of origin of the plasma proteins reveals that virtually every organ in the mammalian body has been suspected of giving rise to one or more of the plasma proteins. The weight of clinical and experimental evidence, however, has most strongly supported the concept that the liver is the organ most important in the biosynthesis of the plasma proteins.

A direct study of the isolated surviving rat liver *in vitro* yields evidence that the liver synthesizes all plasma albumin and fibrinogen and at least 80 per cent of the plasma globulin fraction. Livers are obtained from adult Wistar strain rats and rapidly incorporated in a simple system for the continuous perfusion of isolated intact organs with heparinized oxygenated blood at known temperature and pressure. With the aid of lysine-ε-C^{14} the liver is found to respond to variations in amino acid substrate in a fashion qualitatively and quantitatively analogous to that of the intact animal. Very little plasma protein is synthesized when the liver is offered only lysine-ε-C^{14} in the perfusing blood. The addition of the essential amino acids enhances plasma protein synthesis tenfold. Protein synthesis is further increased by the simultaneous addition of the non-essential amino acids. When under optimal conditions for plasma protein synthesis DL-lysine-ε-C^{14} is replaced by D-lysine-ε-C^{14}, protein synthesis is less than 10 per cent of that seen with the DL-lysine-ε-C^{14}.

The surviving carcass of normal Wistar strain rats, posterior to the second lumbar vertebra, with or without kidneys, has been found to synthesize plasma globulins from a complete mixture of amino acids containing DL-lysine-ε-C^{14}. Although the amino acids are rapidly removed from the continuously perfused heparinized blood, the total plasma protein synthesized amounts to 5-20 per cent of that synthesized by the liver from the same amino acid mixture in the same time.

Weight for weight, the liver is at least 200 times as active as the carcass in plasma protein synthesis. On a relative basis the skeletal muscle, kidney, and testes have produced far more tissue protein than plasma protein. The liver, on the contrary, synthesizes an amount of plasma protein of the same order of magnitude as that of liver tissue protein.

The results of these direct experiments firmly support the notion that the liver plays a dominant part in the biosynthesis of the plasma proteins, and the technique of isolated organ perfusion coupled with the use of isotopes affords a valuable system for the study of various problems in connection with the biosynthesis of proteins.

Dr. Leon L. Miller was the annual guest speaker of the Society at the February meeting.

Little Errors

One of the major problems of public relations we in medicine must consider and help control is that of chronic ailments. Today there are twenty-eight million people, or one out of every six, who suffer from chronic illnesses. We must devise some simple method of mass screening to detect the early casees and then be prepared to provide treatment for conditions that are both recent and old. Of this group seven million are disabled, and two million are invalids. Eleven million five hundred thousand of our population are over sixty-five, and by 1980 this number should reach twenty-two million. The problems herein presented are tremendous, but are not hopeless. Think of the progress we have made in the treatment of diabetes, syphilis, pernicious anemia, diphtheria, smallpox, malaria, pellagra and rickets, to name but a few. Because chronic disease means so much financially, medically, and socially to the patient and because it affects our national economy, we must bend every effort to direct this phase of our American life under the aegis of Blue Cross and Blue Shield, or some comparable agency which has as much or more to offer.

While we are acting as guardians of our patients' health, we must also promote a reform in education. Our Constitution cannot be ignored. Patriotism must be rejuvenated. Racketeers and felons must lose their political protection and be properly punished. Only then will we gain in individual responsibility and property rights. We must be able to plan our budgets wisely and reduce indebtedness, which will never take place under the bureaucratic direction and spending taking place in Washington now.

President's Message



In our public relations planning, we must decide whether or not an emergency exists. If so, is it singular or multiple? Is the danger external or internal? What defenses should we use and how can they best be prepared?

We know there is an external danger and every one is constantly aware of it. We have endured two World conflicts in our efforts to maintain freedom and are now engaged in another war. Each conflict finds an increasing acquiescence to Socialist ideologies which eventually leads to communalism by force *which is Communism.* If our bureaucrats can spend us into insolvency, Socialism and Communism are bound to follow. This, then, becomes our internal danger. This type of reasoning can only lead to the conclusion that the external struggle is only a means to promote impending disaster from within. Can the men and women of medicine meet this challenge? If we can convince enough of our patients that they must promote individuals for American leadership who are above dishonesty, greed and intolerance, then we shall have rendered such a service as will live long in the memories of our children. When we win a moral victory at home, we shall be accorded more respect and co-operation from abroad. The areas of despotism will shrink in favor of freedom and government based on the individual's rights. All we need to do is live in unison with our proclaimed principles.

For many years the little errors of apathy have been allowed to accumulate. Today, the obstacles which have pyramided from our neglect will need the best united efforts our public relations program has to offer.

C E Umphrey M D

President, Michigan State Medical Society

Editorial

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

WE SALUTE

DR. LUNETTE I. POWERS, M.D., of Muskegon, Michigan's foremost family physician for the year 1950. It was fitting and proper that a woman should occupy such a place in our esteem at some time, since women are practicing medicine along with the rest of us, and are doing an extremely good job of it. Dr. Powers seemed to satisfy all the requirements—long years of faithful service to her community, acute interest in noncurricular matters, a keen sense of loyalty and responsibility. Dr. Powers seemed a natural choice for the high honor given her, and the Michigan State Medical Society, the Council, and THE JOURNAL are happy to tender our true and sincere good wishes for the future, and commendations for a life well lived.

THE AMERICAN MEDICAL ASSOCIATION for its more than a century of leadership in building the medical profession of our country into a well-knit, progressive, dynamic group who have in the short space within memory of some of us increased the well-being and life expectancy beyond all thoughts or expectation. It has demonstrated the American principle of independent action. On our own initiative, we have established standards of perfection and excellence for drugs, appliances. We have established many councils which clarified the ethical standards of our own profession. We have modernized and set up standards of instruction and training that have made our profession without question the best educated. The American Medical Association has established in Chicago a headquarters worthy of our pride and esteem. Every member who visits Chicago should visit the Association building. He will go away edified and thrilled.

Michigan salutes a woman doctor and our own great headquarters.

MICHIGAN PROPOSES

THE FEDERAL Income Tax Acts as now applied make it almost impossible for a self-employed person, especially a professional person, to establish a financial program which will leave him a secure income in his later years when his earning capacity is of necessity reduced.

Several times in our JOURNAL,* we have commented to the effect that the medical man and his professional confreres—the dentists, lawyers, architects and others who are self-employed—are handicapped because their training is long and costly. Their income-producing years are short and their income brackets are high. The present high tax arrangement prohibits laying aside a sufficient portion of their income to provide for the later years when their earning capacity has lessened. Others with longer income-producing years, earning just as much, but over longer periods and in lower brackets, pay much less.

We suggest that the Federal Government reexamine its present laws, and allow a self-employed professional person to invest up to 20 per cent of his net income in an approved endowment insurance policy or a specified low interest government bond designated by the Internal Revenue Department. The cost of this investment would be deductible as a business expense, but the income tax would be assessed at the time the endowment or the bond is cashed.

The government now allows industry and business to purchase endowment insurance for its higher executives, charging this cost to expense. The individual will have to pay the income tax when he receives his endowment insurance.

Our proposal gives the self-employed professional man the same benefit already given to other persons. We think it is just, we think it is our right. We propose that such legislation be enacted.

MEDICAL INCOMES

FOR MANY years surveys of medical incomes have been published which give an erroneous impression to the public of high incomes from the practice of medicine. The Council of the Michigan State Medical Society has believed that the publication of such reports and surveys in the past has not been for our best interests.

*Sept., 1945, page 1013; Sept., 1949, pages 1171-2; July, 1950, page 810; April, 1951, page 410.

The Editor has recently seen the results of a very exhaustive survey of the incomes and spending habits of a typical group of our own members whose incomes from their profession ranged from a minimum to a high of $42,500. Averages only, were shown to us; and we were interested to learn that well over half of these incomes were under $25,000, the largest number being in the $20,000 group. Significant to us was the average cost of doing business, living expenses, et cetera, and particularly the small amount available for saving after taxes and contributions.

We believe a series of short articles on these studies would be most informative and have prevailed upon Messrs. Henry Black and Allison Skaggs, who made these studies, to prepare such articles for publication in THE JOURNAL. These gentlemen published several medical finance articles in our JOURNAL several years ago and stimulated much keen interest.

WAYNE UNIVERSITY MEDICAL SCHOOL

THE MICHIGAN State Legislature has been asked to appropriate sufficient funds to build a new science building for Wayne University. Much of the building now being used was old at the beginning of this Century. It is completely antiquated and actually unsafe for school purposes.

Michigan needs to educate its own doctors of medicine. We cannot expect our young men who wish to study medicine to be accepted in schools of other states when we will not accept students from other states in our schools. Wayne accepts no foreign students and the University of Michigan a very minimal number.

Michigan is now depending upon migration from other states to fill our medical needs. The City of Detroit has accomplished wonders in conducting and equipping a good medical school. Students are accepted from throughout the state, and the State Legislature has recognized its partial responsibiliy to Wayne University by an appropriation for planning made last year. There should be no hesitancy now and no delay in making an adequate science building available.

Funds were granted a year ago to the University of Michigan for such a building. Wayne University's needs are even greater, and such a grant could increase the number of doctors of medicine graduated very materially.

A word to our Representatives and Senators would help. Most of our doctors know their Senators and Representatives sufficiently well that their expressed opinion will be favorably received.

ON THE RUN

Livestock bitten by rabid carnivores are unlikely to develop the disease and may be safely slaughtered within one week or after six months. The only risk is to the handlers of the live animal or carcass, not to the consumer.

* * *

Methemglobinemia in infants from nitrates in well water can be relieved promptly by intravenous methylene blue solution 1 to 2 mg. per kg.

* * *

Acanthosis nigricans appearing in the axilla or groin may be a sign of internal cancer in adults but not in children . . .

* * *

A distensible organ subjected to prolonged strain ultimately loses its elasticity.

* * *

Iron deficiency is most likely to occur in mennorhagia, functional, fibroidal or menopausal, bleeding peptic ulcer, hemorrhoids, miscarriage or postpartum bleeding, parasitic infestation or bleeding from malignancy of excretory organs.

* * *

More liver damage may follow infectious hepatitis than cirrhosis.

* * *

Cation exchange resins offer a supplementary treatment for edema, tending to produce acidosis in contrast to the alkalosis induced by the mercurial diuretics.

* * *

The bearing of several large infants may presage the development of diabetes in the mother.

Selected by W. S. REVENO, M.D.

TAX AGENTS CHECK UP ON ONE OF EVERY TWELVE RETURNS

The chances are about one in twelve that the income tax return you must make as an individual will be scrutinized to be sure you paid enough.

That is, if you are in the so-called lower brackets.

If you make more than $25,000, the odds are even that Federal agents will examine your return.

These Internal Revenue Bureau policies were revealed to the House Appropriations Committee during hearings on the 1952 Treasury appropriation bill.

Bureau officials said:

On returns of from $7,000 to $10,000, examinations are made of 8.80 per cent; from $10,000 to $25,000, it's 17.2 per cent; from $25,000 to $100,000, the percentage is 58.1; on $100,000 and over, 85.4 per cent are examined.

Those are figures on checks of 1948 returns.

On returns of $25,000 and over, the examinations have disclosed that seven out of every 10 have been in error. So, starting this year, every return in the big-bracket group will be audited once every two years.

All returns, regardless of size, are "scanned" for mathematical errors.

All in all, said the Internal Revenue Bureau, 95 per cent of American taxpayers are honest. The errors they make are not dishonest errors.—*Detroit Free Press,* March 15, 1951.

Dr. Powers to Receive Northwestern Award

Another outstanding award is coming to Dr. Lunette I. Powers, of Muskegon, "Michigan's Foremost Family Physician of 1950."

Dr. Powers has been chosen by Northwestern University Alumni to receive the award of the year for distinguished service among its thousands of alumni. She is to retur[n] to receive the honors during t[he] Illumination Night ceremonies.

Frederick Merrifield, M. D., cha[ir]man of the Achievement Comm[it]tee, of Northwestern alumni, a[nd] G. Willard King, the director, in[a] letter to the Muskegon physici[an] today said:

"You have been chosen fr[om] thousands of Northwestern U[ni]versity Alumni to receive t[he] merit award from the Alum[ni] Association 'in recognition [of] worthy achievement.'"

The letter closed with, "Ple[ase] accept our heartiest congratu[la]tions. We are indeed proud [of] you."

Dr. Powers was graduated fr[om] the Northwestern Medical Sch[ool] in 1897 at the age of 22. Her r[e]ord at the university brou[ght] an internship at C[hi]brated M[a]yo Clinic.

Muskegon Woman, 75, Named State's 'Foremost Family Doctor For 1950'

DETROIT —(AP)— Michigan medicine paid its highest honor today to a woman.

Motherly looking Dr. Lunette I. Powers, of Muskegon, at 75 still in practice, was chosen "Michigan's foremost family physician for 1950."

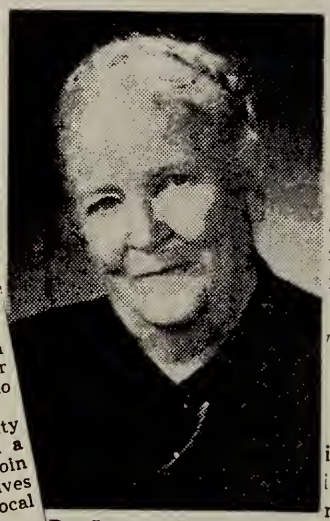
The Michigan State Medical Society gave Dr. Powers its proudest citation for her service of more than half a century to the healing arts.

Dr. Powers has spent mo[st] of her career in Mus[kegon].

She was honored in the society's award as "the true family doctor, a personification of all the medical profession stands for."

Never marrying, she has given her life to her profession.

Nonetheless, children have been a big part of her life. She is credited with having helped to bring 5,000 Muskegon babies into the world.



Dr. Lunette I. Powers

Legislators Honor Dr. Powers

Adoption by the House of Representatives of the state legislature of a resolution offered by Representative Louis H. Freye of Muskegon, congratulating Dr. Lunette I. Powers of Muskegon on recently being chosen "Michigan's Foremost Family Physician" for 1950 by the Michigan State Medical Society, is the latest honor to the community's veteran woman physician.

Greater Muskegon will honor Dr. Powers with a community dinner at the Occidental ballroom, Jan. 31 at 6:30 p. m. when a delegation will be present from the State Medical Society to join the Muskegon County Medical Society, and representatives professional, business and industrial groups, and local

event already ha[s] aks in Greater M[uskegon]

d from Northwe[stern] een practicing i[n] listered to thous[ands] owers come[s] family. Her g[reat] t-grandfather parents were she entered th[e] ee from Nort[hwestern] ity.

t that time it w[as] remarkable t[o] sician.

r. Powers has rance. But she dren of her o[wn] ever marrying, life to her pr[o]fession onetheless, chil[dren] g part of her l[ife] with having 0 Muskegon b[a]bies ld.

MUSKEGON WOMAN DOCTOR RECEIVES STATE RECOGNITION

DETROIT, Dec. 7 (AP)—Michigan medicine paid its highest honor today to a woman.

Motherly-looking Dr. Lunette I. Powers of Muskegon, at 75 still in practice, was chosen "Michigan's foremost family physician for 1950."

The Michigan State Medical Society gave Dr. Powers its proudest citation for her service of more than half a century to the healing arts.

Dr. Powers has spent most of her career in Muskegon.

She was honored in the society's award as "the true family doctor, a personification of all the medical profession stands for."

Never marrying, she has given her life to her profession.

Nonetheless, children have been a big part of her life. She is credited with having helped to bring 5,000 Muskegon babies into the world.

Muskegon Is Proud

As most of us know, "Michigan's Foremost Family Physician" for 1950 will be a resident of Muskegon, for Dr. Lunette I. Powers of this city has been accorded this year's annual award of the Michigan State Medical Society.

From all the doctors of the state, [she] was singled out as most de[serving] the title. Those who know [her] can easily understand and, [of] the real pleasure is that [in] so wide an area have also [known] her unusual record of serv[ice].

[There] re nothing new in Dr. Pow[ers] and furthermore she is a [woman] knows how to put them in [practice]. Practicing in Muskegon [for] ars, she has had high recog[nition] n local physicians, from [the] rn University and previous[ly] State Medical Society itself. [Achie]vements and her sense of [duty] to serve her profession [are] elling to local residents.

[Her] attitude is summed up in [a] in the remarks she made [when] ied of the new state award. [I] not deserve this great honor [as] lt bv mvself, with the full

Deserving Of Honor

MICHIGAN'S doctors apparently made a splendid decision in naming Dr. Lunette I. Powers, 75-year-old woman practitioner from Muskegon, as "Michigan's foremost family physician for 1950."

Dr. Powers, one of the first woman doctors in the state, has been practicing since she was 22, when she graduated from medical college at Northwestern University.

There has been nothing spectacular in her career, although she can undoubtedly claim sort of a record for having officiated at some 5,000 childbirths. She has just been a good, kindly, understanding family physician. Until recent years when younger doctors took over this task for her, she never shirked night calls in the line of duty. She never married. Her life was dedicated to medicine. She has made several trips abroad to keep abreast of the latest medical knowledge.

SHE has, apparently, never wanted to be anything but a good doctor. Her home community, Muskegon, and her alma mater, Northwestern University, have recognized her with numerous honors.

It was a fitting honor which the Michigan State Medical Society accorded her in her 75th year, which found her still active in her profession in the 53rd year of her practice. It is not given to many physicians—or citizens in any line of endeavor — to attain a record of more than half a century of service. It must be heart-warming to Dr. "Nettie" Powers to realize that her colleagues have recognized her devotion to duty and have called it to the attention of the entire state. She modestly can't understand "how this honor ever came to me." That modesty seems to be further proof that she is deserving of it.

Some of the Hundreds of Newspaper Clippings Honoring
"Michigan's Foremost Family Physician for 1950"

Michigan's Foremost Family Physician for 1950

A True Exponent of the "Golden Rule"

THE DOCTORS of Michigan and the citizens of this state are more and more being made aware of the personality selected by them as "Michigan's Foremost Family Physician" for 1950 —for in the few short months which have elapsed since announcement of the award, Lunette I. Powers, M.D., Muskegon practitioner for more than fifty years, has been honored and acclaimed throughout the state and nation.

The latest accolade accruing to the energetic "Grandmother of Medicine" is that to be conferred upon her by the Alumni Association of her Alma Mater, Northwestern University. On June 7, the kindly, gray-haired general practitioner will receive the 1951 Award for Distinguished Service from Frederick Merrifield, M.D., Chairman of Achievement Committee of Northwestern Alumni.

The career of the 75-year-old practitioner which began the year before the Spanish-American War is one that becomes, without question, a personification of the "Golden Rule."

A true "family doctor," she is all that the medical profession stands for. When notified of her new honor, she unselfishly said, "That I do not deserve this great honor is fully felt by myself, with the full realization that were it not for the considerate, courteous and kindly helpfulness of all my associates and friends, this great joy would not be mine today."



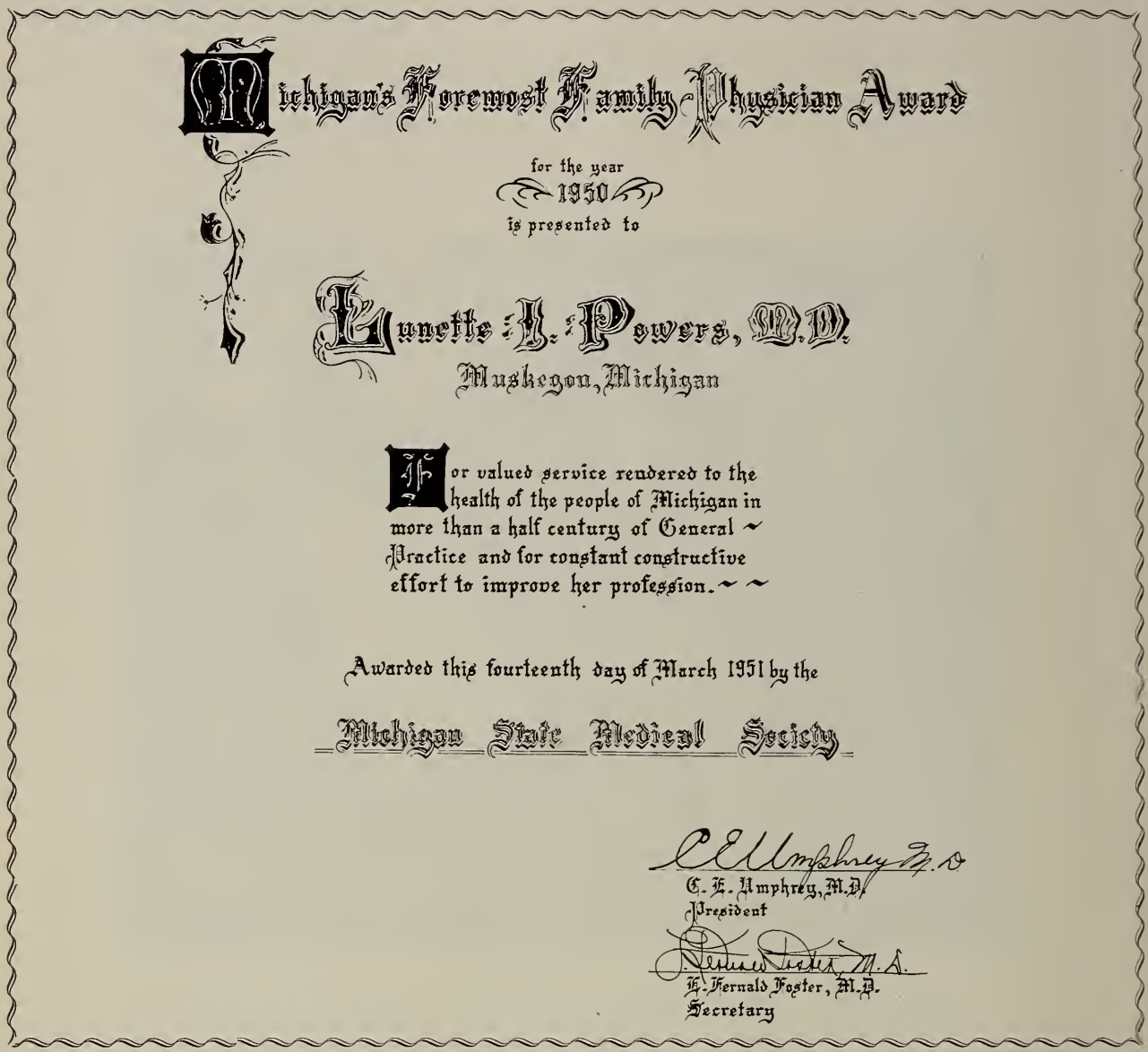
AWARD PRESENTATION

Left to right: MSMS Secretary L. Fernald Foster, M.D., Bay City; Awardee Lunette I. Powers, M.D., Muskegon; MSMS President C. E. Umphrey, M.D., Detroit.

In addition to this award, the kindly lady doctor has been honored on many occasions. The Michigan State Legislature, during its current session, paid honor by adopting a concurrent resolution recognizing her great contributions to humanity through an unequaled life of unselfish service. Her first half-century of medical practice was noted in 1947 when she was elected to membership in the "50-Year Club" of her state medical society and

also received a similar certificate from the Muskegon County Medical Society. Also in 1947, Dr. Powers was presented a Golden Reunion Certificate by her Alma Mater, Northwestern University.

confining classrooms behind, the 22-year-old "upstart" took the examinations leading to an internship at Chicago's famed Mary Thompson Hospital. She finished second among those competing



Michigan's Foremost Family Physician Award

for the year 1950 is presented to

Lynette L. Powers, M.D.

Muskegon, Michigan

For valued service rendered to the health of the people of Michigan in more than a half century of General Practice and for constant constructive effort to improve her profession.

Awarded this fourteenth day of March 1951 by the

Michigan State Medical Society

C. E. Umphrey, M.D.
President

H. Fernald Foster, M.D.
Secretary

With a smile of reminiscence in her eyes, Doctor Powers told of the trials and tribulations that were hers in the struggle to complete her studies in the "no woman's land" of her day. Her interest in medicine, however, was deep rooted, having been born of an ancestry which included a grandfather and great-grandfather who were doctors of medicine. Her ambitions were furthered still by parents who were lifelong pharmacists and close friends of the medical profession.

Medical studies successfully completed, young Doctor Powers graduated from Northwestern University Medical School in 1897. Then, leaving and after a period of time left for further internship in the Detroit Woman's and Children's Hospitals. Doctor Powers, in explanation of her internship, said, "The move wasn't necessary nor required at that time but being so young, I hesitated entering private practice until I had secured more seasoning and experience."

In 1900, Muskegon's first woman doctor hung out her shingle in competition with the male practitioners of that area and since that day has been closely associated with the growth and life of this Michigan community.

Her life has been one of complete sacrifice and devotion to duty and today after more than fifty-

three years of active service, this kindly, benign doctor answers calls for help whether it be day or night. Her younger associates, however, in deference to her seniority and years, insist on caring for the majority of her night calls, although Doctor Powers has no trouble recalling the "times in years gone by when I would be returning from a round of night calls just as the sun was coming up."

A great, consuming love for her profession has always taken the time necessary for marriage, but the friendly doctor has many times experienced the thrill of family life, for by her own estimate, she has delivered more than 5,000 Muskegon residents into the world.

A close friend of famed Dr. Bertha Van Hoosen, Chicago surgeon and author of the best seller, "Petticoat Surgeon," Doctor Powers has traveled in many foreign lands searching for additional knowledge of her art. Both women physicians toured England, Scotland and Ireland in 1937, making a careful study of the hospitals and clinics in these lands. Doctor Powers went south of the border in 1947 to attend a meeting of the Woman's International Medical Association in Mexico City.

An avid follower of medical events, the Muskegon doctor is a perennial attendant at meetings of her County Medical Society, the Michigan State Medical Society and the American Medical Association. She also maintains an active interest in civic affairs and is one of the founders of Muskegon's Quadrangle Club, a group of women devoted to furthering their professional and cultural associations.

Doctor Powers, who served as the first Chief of Obstetrics at Muskegon Hackley Hospital, still carries on there as a staff member as well as at nearby Mercy Hospital.

Typical of the hurried and busy life she leads after three-quarters of a century was Doctor Power's acknowledgment of her MSMS honor. Hastily penned on a dinner napkin as she rode between her hospitals in Muskegon, the note read: "I wish it were possible to tell you in a more forceful manner how very appreciative, grateful and happy I am. How could this award ever come to me?" And while the good doctor wonders, many thousands of her friends and patients in Muskegon and throughout the land truly know why she was singled out to be the selection of Michigan's medical profession as "Michigan's Foremost Family Physician" for 1950.

COMMON GERIATRIC DERMATOSES

(Continued from Page 500)

visceral diseases is of special importance in the management of dermatitis affecting elderly persons. Hormone therapy may be helpful in senile pruritus, and intramuscular injections of crude liver extract and administrations of vitamin B complex are often beneficial in seborrheic dermatitis. Existing anemia should be treated, and the diet should be adequate and properly balanced. The diet of an elderly person is often too high in carbohydrates. This is particularly true of elderly patients with seborrheic dermatitis.

Basic principles in the management of common types of dermatitis are the same for all age groups. However, degenerative changes of senile skin and other biologic changes incident to aging alter the clinical course of dermatitis in patients past sixty years of age. Satisfactory response to the treatment will depend, among other things, upon thorough evaluation of the physical and functional status of the patient, the perseverance of the physician and the co-operation of the patient.

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3. Ormsby, Oliver S.: Skin problems of the aged, geriatrics. J.A.M.A., 135:831, (Nov. 29) 1947.
4. Weidman, Fred D.: The pathology of the yellowing dermatoses. Arch. Dermat. & Syph., 24:954, (Dec.) 1931.

I know that the backers of the national health plan in this country resent the term "socialized medicine." They have all sorts of arguments to "prove" that doctors and patients will remain free as the air under their program. They make a strong case. Perhaps if human nature were less ornery and less aviricious, an idealistic health program might work out all right. But so long as people have preferences, so long as Park Avenue has more appeal than Hell's Kitchen, there will be an uneven distribution of doctors under any plan that does not contain compulsion. And once compulsion enters the picture, the rights and freedoms of all citizens stand in jeopardy. To me it is as simple as that. For forty years I have fought communism tooth and toenail because I do not want anyone pushing me around. I certainly do not want to put my head into a socialization noose voluntarily when the results can be as undesirable as communism.—William L. Hutcheson, *Gen. Pres.* Brotherhood of Carpenters and Joiners, and Vice-Pres., A. F. of L., Cleveland, Dec. 6, 1950.



ELMER L. HENDERSON, M.D.
President
American Medical Association

To the Physicians of Michigan

This message is to commend you, the physicians of Michigan, for the superb manner in which you continue to serve the people of your state—guaranteeing them not merely the minimum of medical care, but actively endeavoring to secure for them the blessings of good health.

Because you, as individuals and as a state society, recognize that good health is the doctor's responsibility—not the government's—you have initiated many successful medical activities. Of special note are your Michigan Medical Service Plan, one of the world's largest voluntary health and medical service programs; your CAP Public Education Campaign; your Mediation Committee to hear complaints; your aggressive cancer, rheumatic fever, and rural health projects.

Through your community-minded professional efforts, you are joining America's doctors—and in many instances leading the way—in the campaign to keep American medicine free of government controls. Your continued efforts to boost Michigan's health will help America maintain her high standards of medical care which today are the best in the world.

(Signed) Elmer L. Henderson, M.D.
President, American Medical Association

Into the Second Century With the American Medical Association

THE AMERICAN MEDICAL ASSOCIATION is in the second century of its history, carrying on in the interest of the nation's health.

It was founded on May 5, 1847, when 250 delegates representing more than forty medical societies and twenty-eight colleges, embracing medical institutions in twenty-two states and in the District of Columbia, met in the hall of the Academy of Natural Sciences, Philadelphia. Dr. Nathaniel Chapman of Pennsylvania was elected first president.

From that small beginning, the American Medical Association has grown to become the largest medical organization in the world. It has more than 145,000 members. Of these, more than 81,000 are Fellows. There are more than 2,000 constituent county, parish or district societies in its makeup.

The AMA is a non-profit institution. Its purposes are to promote the science and art of medicine; to organize the medical profession and safeguard its worthy interests; to elevate the standard of medical education and practice, and to bring about the enactment of uniform legislation for the public welfare and to protect the public health.

At the very beginning of its existence, the American Medical Association began to war on quackery. A resolution was introduced at the organizational meeting condemning the practice then of allowing the untrained to engage in apothecaries and urging the establishment of schools of pharmacy. It also attacked the universal traffic in secret medicines and nostrums.

This war has been carried on relentlessly and the association more than any other agency in the country can take credit for the vast improvement that has occurred.

Public Benefits from Services

The marvelous advancements in medical science during the last century have helped to build the American Medical Association, which educates its members through meetings, exhibits, its many periodicals, its councils and committees and in other ways. The benefits of these activities are passed on to the public—the ultimate consumer.

In the course of time, the AMA has developed a large number of activities, all of which directly or indirectly have contributed to the outstanding health record of this nation.

The tremendous advance in scientific and technologic discovery within the last century has been rivaled only by the rapidity with which such discoveries have been adapted to medical uses. The practice of medicine is still an art as well as a science, and the scientific aspects of medicine place a heavy burden of responsibility on the individual physician and the American Medical Association.

In giving the patient the best that medical science has to offer, the practicing physician requires not only a long, expensive and exacting period of study and training, but he must continue throughout his career to have information on the latest discoveries in medicine.



The eight-story headquarters of the American Medical Association at 535 North Dearborn Street, Chicago, with some of the more than 800 employes who work there. Courtesy *Look* magazine.

Few persons have time personally to evaluate new medical agents, foods or therapeutic aids. In this, as in many other matters, the doctors must look to a specializing committee or bureau, and to the collective opinion of experts.



George F. Lull, M.D., Secretary and General Manager of the American Medical Association. Courtesy, *Look* magazine.

Moreover, with technologic and scientific advance, new specialties have arisen which bring with them questions of policy, qualification and preparation. On these questions, as on many others relating to the scientific aspects of medicine, there must be agreement, order and exchange of information among physicians.

To accomplish these services, the AMA has developed working councils and bureaus. They are the Council on Medical Education and Hospitals, Council on Pharmacy and Chemistry, Council on Foods and Nutrition, Council on Physical Medicine and Rehabilitation, Council on Scientific Assembly, Therapeutic Trials Committee, Committee on Cosmetics, Committee on Therapeutic Research, Committee on Pesticides, Bureau of Investigation, Bureau of Exhibits, Chemical Laboratory and Microbiologic Laboratory.

Evaluate Medical Schools and Hospitals

The Council on Medical Education and Hospitals was organized in 1904 to improve the quality of medical education. Since then, largely through the efforts of the Council, the standards of medical education in the United States have been raised to the point where they are generally recognized to be the best in the world.

The Council on Pharmacy and Chemistry was organized in 1905 to protect the medical profession and the public against quackery in the social aspects of medical practice, and against fraud, undesirable secrecy and objectional advertising in connection with proprietary medicines.

However, the Council's scope has been broadened to include the preparations of special treatises, articles, reports on the status of certain medicines, and books designed for the practitioner and medical student.

Provide Aid in Therapeutic Research

Two standing committees of the Council—Therapeutic Trials and Therapeutic Research—are well known for their contributions to research.

The Therapeutic Trials Committee is devoted to the encouragement of research on medical agents and the promotion of adequate treatment through a better understanding of the limitations of drugs and allied products.

That committee also organizes impartial clinical trials of biological and pharmaceutical agents which show promise of being good in either diagnosis, prevention or therapy. It also sponsors and co-ordinates co-operative clinical investigations, involving a number of institutions.

The Committee on Therapeutic Research encourages scientific investigations in the field of therapeutics by providing funds for the prosecution of necessary research.

The Committee on Pesticides of the Council on Pharmacy and Chemistry was formed in 1950. It began its activities with a six-point program for insecticides, fungicides, rodenticides, herbicides and similar types of economic poisons. This program involves: (1) Promotion of safe standards of use; (2) development of antidotal measures; (3) stimulation of voluntary control by the industry; (4) standardization of nomenclature; (5) accumulation and evaluation of new information, and, (6) undertaking of an intensive program of public education on usefulness and limitations of these agents.

Organized in 1929, the Council on Foods and Nutrition evaluates the nutritional claims of food products processors. The Council appraises voluntarily submitted foods, accompanied by complete advertising and information on ingredients, manufacturing process, bacteriologic examination and assurance of compliance with food laws.

Physical Devices Investigated

The Council on Physical Medicine and Rehabilitation was organized in 1925 as the Council on

Physical Therapy. Its purpose is to gather and disseminate such information as will assist the medical profession in determining the therapeutic and diagnostic value of certain physical devices and methods employed in the practice of medicine.

The Committee on Cosmetics was organized in 1948 to provide information on cosmetics and other toilet goods preparations. The committee evaluates and accepts cosmetics that conform to its rules. A Seal of Acceptance is issued to the products which pass.

Bureau Wars Against Quackery

Another aid in the war on quackery was set up in 1906 with the establishment of the Bureau of Investigation. This serves as a clearing house of information on "patent" and over-the-counter medicines and related sundries, all forms of quackery, medical fads and fakes. Its files contain over 500,000 cards which are kept up to date.

The information is available to physicians, their patients, students and educators, government agencies and civic groups. The functions of the bureau are wholly educational in character, not punitive.

Medical Publications Recognized World Over

The publications of the American Medical Association are recognized the world over for their contribution to medical knowledge. These periodicals reflect not only the advancements in medical science but every phase of medical interest.

In the forefront is *The Journal of the AMA,* established in 1883 and now with a weekly circulation of more than 135,000. This is supplemented by nine specialty journals, covering the following subjects: Internal Medicine, Diseases of Children, Neurology and Psychiatry, Surgery, Dermatology and Syphilology, Otolaryngology, Pathology, Ophthalmology and Industrial Hygiene and Occupational Medicine. These monthly publications were established at various times beginning in 1909.

One of the outstanding medical libraries of the world is maintained for the benefit of members of the Association. A member wishing the latest literature on a medical subject which concerns one of his patients is immediately sent a package of material on the subject.



A typical scene during the annual session of The House of Delegates of the American Medical Association. Courtesy, *Look* magazine.

Promotes Social-Economic Aspects

The social and economic aspects of the practice of medicine have attained far-reaching implications. The physician is concerned with these implications as they reflect on the patient, the public and the profession.

Acting collectively for the individual physician, the American Medical Association, through its councils, committees and headquarters facilities, makes continuing study of activities, progress and trends in the socio-economic field of medicine.

The councils, committees and headquarters staff:

1. Assist the profession in keeping abreast of changes and trends in the socio-economic field of medicine.
2. Assist the patient in his search for ways and means of providing himself with medical care.
3. Assist the public in understanding the medical profession, and the quality and the value of the individual physician's services.
4. Bring together the public, the patient and the profession in the solution of the social and economic problems of medical care.

In 1873, the Judicial Council of the Association was organized to deal with matters concerning professional ethics. It is now becoming realized that the ethical standards which have been maintained and defended by the medical profession have been and remain among the greatest safeguards to the public health.

These ethics tend constantly to improve the quality of medical practice and to discourage dishonesty, charlatanism, quackery, undue personal ambition, destructive commercialism and other undesirable influences.

Legislative Bills Evaluated for Soundness

Established in 1922, the Bureau of Legal Medicine and Legislation performs a function of vital interest to the physician and the public. Everyone has a stake in soundly conceived legislation relating to medical care. The total of bills introduced in the state legislatures and Congress each year numbers in the thousands. Some bills are soundly conceived; others are not.

The Council on Medical Service was formed in 1943 to study the effect of the rapid social and economic changes on the problems of medical care. In carrying out its functions, the Council suggests means for improving the distribution of medical services and works with interested groups in such improvement. The Council encourages a broadening of the voluntary health insurance program and awards its Seal of Acceptance to those voluntary prepayment medical plans which meet certain basic standards.

In 1938, the Council on Industrial Health was organized to assist the medical profession in developing and maintaining a high standard of health in industry. One of its purposes is to encourage broader participation in the expanding field of industrial health and medicine.

The Bureau of Health Education, organized in 1910, serves the public and the profession through literature, radio and television programs and other educational means. One of its most important activities is a program in school health and physical fitness.

Rural Health Advanced

To deal with the problem of maintaining an adequate supply of medical personnel and treatment facilities in rural areas, the Committee on Rural Health was organized in 1945.

In 1947, the Council on National Emergency Medical Service was established. This council is concerned with the medical and associated problems involved in the mobilization of our nation's civilian population in time of national emergency. Continuous co-ordinated study of the numerous problems associated with the mobilization of our nation's manpower resources and materials is required.

The AMA Public Relations Department aids the national, state and local medical societies in solving public relations problems, and helps the medical profession in building good will through public service.

The Bureau of Medical Economic Research was established in 1931 to study the economic aspects of the practice of medicine. Its activities include studies of the supply of and the demand for medical service. It carries on detailed research projects in medical economics.

In 1906, the AMA produced its first edition of the American Medical Directory, giving a biographical record of all physicians in the United States, its territories and Canada. The eighteenth edition, published in 1950, contains nearly 220,000 names.

The Woman's Auxiliary to the American Medical Association, organized in 1922, has a membership of nearly 50,000. The Auxiliary aids in the promotion of the health aims of the AMA.

Michigan State Medical Society

The 86th Annual Session



R. J. Hubbell, M.D.
Kalamazoo
Council Chairman



C. E. Umphrey, M.D.
Detroit
President



R H. Baker, M.D.
Pontiac
Speaker



L. Fernald Foster, M.D.
Bay City
Secretary

OFFICIAL CALL

The Michigan State Medical Sociey will convene in Annual Session in Grand Rapids, Michigan, on September 24, 25, 26, 27, 28, 1951. The provisions of the Constitution and By-Laws and the Official Program will govern the deliberations.

C. E. Umphrey, M.D.
President

R. J. Hubbell, M.D.
Council Chairman

R. H. Baker, M.D.
Speaker

J. E. Livesay, M.D.
Vice Speaker

Attest:

L. Fernald Foster, M.D.
Secretary



J. E. Livesay, M.D.
Flint
Vice Speaker

TWO-DAY SESSION OF HOUSE OF DELEGATES, SEPTEMBER 24-25, 1951

The 1951 House of Delegates of the Michigan State Medical Society will hold a two-day session beginning Monday, September 24, at 10:00 a.m. The business of the House of Delegates will be transacted in the Ballroom, Pantlind, Hotel, Grand Rapids.

The House will also meet Monday at 2:00 p.m. and at 8:00 p.m. and on Tuesday, September 25, at 10:00 a.m. and at 8:00 p.m.

The intervals between meetings of the House of Delegates have been spaced to permit the Reference Committes ample time to transact all business referred to them.

Seating of Delegates

"Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate next on the list as certified by the Secretary of the component County Society involved."—MSMS By-Laws, Chapter 8, Section 6.

Michigan State Medical Society

Past Presidents 1866-1950

1866—*C. M. Stockwell, Port Huron
1867—*J. H. Jerome, Saginaw
1868—*Wm. H. DeCamp, Grand Rapids
1869—*Richard Inglis, Detroit
1870—*I. H. Bartholomew, Lansing
1871—*H. O. Hitchcock, Kalamazoo
1872—*Alonzo B. Palmer, Ann Arbor
1873—*E. W. Jenk, Detroit
1874—*R. C. Kedzie, Lansing
1875—*Wm. Brodie, Detroit
1876—*Abram Sager, Ann Arbor
1877—*Foster Pratt, Kalamazoo
1878—*Ed. Cox, Battle Creek
1879—*George K. Johnson, Grand Rapids
1880—*J. R. Thomas, Bay City
1881—*J. H. Jerome, Saginaw
1882—*Geo. W. Topping, DeWitt
1883—*A. F. Whelan, Hillsdale
1884—*Donald Maclean, Detroit
1885—*E. P. Christian, Wyandotte
1886—*Charles Shepard, Grand Rapids
1887—*T. A. McGraw, Detroit
1888—*S. S. French, Battle Creek
1889—*G. E. Frothingham, Detroit
1890—*L. W. Bliss, Saginaw
1891—*George E. Ranney, Lansing
1892—*Charles J. Lundy
(Died before taking office)
*Gilbert V. Chamberlain, Flint, Acting President
1893—*Eugene Boise, Grand Rapids
1894—*Henry O. Walker, Detroit
1895—*Victor C. Vaughan, Ann Arbor
1896—*Hugh McColl, Lapeer
1897—*Joseph B. Griswold, Grand Rapids
1898—*Ernest L. Shurly, Detroit
1899—*A. W. Alvord, Battle Creek
1900—*P. D. Patterson, Charlotte
1901—*Leartus Connor, Detroit
1902—*A. E. Bulson, Jackson
1903—*Wm. F. Breakey, Ann Arbor
1904—*B. D. Harison, Sault Ste. Marie
1905—*David Inglis, Detroit
1906—*Charles B. Stockwell, Port Huron
1907—*Hermon Ostrander, Kalamazoo
1908—*A. F. Lawbaugh, Calumet
1909—*J. H. Carstens, Detroit
1910—*C. B. Burr, Flint
1911—*D. Emmett Welsh, Grand Rapids
1912—*Wm. H. Sawyer, Hillsdale
1913—*Guy L. Kiefer, Detroit
1914—*Reuben Peterson, Ann Arbor
1915—*A. W. Hornbogen, Marquette
1916—*Andrew P. Biddle, Detroit
1917—*Andrew P. Biddle, Detroit
1918— Arthur M. Hume, Owosso
1919—*Charles H. Baker, Bay City
1920—*Angus McLean, Detroit
1921—*Wm. J. Kay, Lapeer
1922—*W. T. Dodge, Big Rapids
1923—*Guy L. Connor, Detroit
1924—*C. C. Clancy, Port Huron
1925—*Cyrenus G. Darling, Ann Arbor
1926— J. B. Jackson, Kalamazoo
1927— Herbert E. Randall, Flint
1928— Louis J. Hirschman, Detroit
1929— J. D. Brook, Grandville
1930—*Ray C. Stone, Battle Creek
1931—*Carl F. Moll, Flint
1932— J. Milton Robb, Detroit
1933—*George LeFevre, Muskegon
1934—*R. R. Smith, Grand Rapids
1935— Grover C. Penberthy, Detroit
1936— Henry E. Perry, Newberry
1937— Henry Cook, Flint
1938— Henry A. Luce, Detroit
1939— Burton R. Corbus, Grand Rapids
1940— Paul R. Urmston, Bay City
1941— Henry R. Carstens, Detroit
1942— H. H. Cummings, Ann Arbor
1943— C. R. Keyport, Grayling
1944— A. S. Brunk, Detroit
1945—*V. M. Moore, Grand Rapids
(Died before taking office)
1945— R. S. Morrish, Flint
1946— Wm. A. Hyland, Grand Rapids
1947—*P. L. Ledwidge, Detroit
1948— E. F. Sladek, Traverse City
1949—Wilfrid Haughey, Battle Creek
(President-for-a-Day, Sept. 21, 1949)
1949—W. E. Barstow, St. Louis
1950—C. E. Umphrey, Detroit

*Deceased.

Michigan State Medical Society

The 86th Annual Session

Pantlind Hotel-Civic Auditorium, Grand Rapids, Michigan

September 26-27-28, 1951

INFORMATION

● **GRAND RAPIDS WILL BE HOST TO MSMS IN SEPTEMBER.**

● **THE PROGRAM OF THE ASSEMBLY** for the 86th Annual Session and Postgraduate Conference of the Michigan State Medical Society lists guest speakers from all parts of the United States. They are the usual stars in the medical world which always grace the annual conventions of the Michigan State Medical Society; they insure a valuable concentrated postgraduate course in all phases of medicine and surgery for the busy practitioners of Michigan, neighboring states and the Province of Ontario, on September 26-27-28, 1951.

● **REGISTRATION,** Tuesday afternoon through Friday afternoon, September 25-28, Civic Auditorium. Advance registration—on Tuesday and early Wednesday morning—will save your time. Present your State Medical Society or Canadian Medical Association membership card to expedite registration.

No registration fee for State Medical Society and CMA members.

Doctors of Medicine, who are not members of their state medical society or the Canadian Medical Association, will be accorded the privileges of the MSMS Annual Session upon payment of a $5.00 registration fee.

Register as soon as you arrive. Admission by badge only.

● **ALL SUBJECTS** at the MSMS Annual Session are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

● **POSTGRADUATE CREDITS** given to every MSMS member who attends MSMS Annual Session.

● **SIX ASSEMBLIES AND ONE PUBLIC MEETING**—fourteen Section Meetings—Twenty-four Discussion Conferences on September 26-27-28.

● **AMA PRESIDENT AT PUBLIC MEETING.** The General Meeting of Wednesday, September 26, 8:30 p.m.—Officers' Night—will be open to the public. Invite your patients and friends to hear John W. Cline, M.D., San Francisco, California, President, American Medical Association, Black and Silver Ballroom, Civic Auditorium, Grand Rapids.

● **PAPERS WILL BEGIN AND END ON TIME.** This scientific meeting will feature by-the-clock promptness and regularity.

● **ONE HUNDRED TWENTY TECHNICAL EXHIBITS** will contain much of interest and value. Intermissions to view the exhibits have been arranged.

● **J. DUANE MILLER, M.D., GRAND RAPIDS,** is General Chairman of the Grand Rapids Committee on Arrangements for the 1951 MSMS Annual Session.

● **CABARET-STYLE DANCE AND ENTERTAINMENT,** with the compliments of the Michigan State Medical Society, will be held in the Ballroom, Pantlind Hotel, Thursday evening, September 27. All who register, and their ladies, will receive a card of admission and are cordially invited to attend.

● **MSMS HOUSE OF DELEGATES** convenes Monday, September 24, at 10:00 a.m., Ballroom, Pantlind Hotel. It will hold three meetings on Monday, at 10:00 a.m., at 2:00 p.m., and at 8:00 p.m., also two meetings on Tuesday, September 25, at 10:00 a.m., and at 8:00 p.m.

● **THE WOMAN'S AUXILIARY** to the Michigan State Medical Society will present an attractive social and business program at the Pantlind Hotel, Grand Rapids. The wife of every MSMS member is cordially invited to attend.

● **MEMBERS OF MICHIGAN MEDICAL SERVICE** will meet in annual session, Tuesday, September 25, Ballroom, Pantlind Hotel, at 2:00 p.m., following the MMS luncheon at 1:00 p.m. in the Kent State Room.

A Scientific Exhibit will be featured at the 1951 MSMS Annual Session,
in the Civic Auditorium, Grand Rapids

SAVE AN ORDER FOR THE EXHIBITOR AT THE MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

MICHIGAN STATE MEDICAL SOCIETY

The 86th Annual Session

Pantlind Hotel-Civic Auditorium, Grand Rapids
September 24, 25, 26, 27, 28, 1951

HOUSE OF DELEGATES—ORDER OF BUSINESS*

MONDAY, SEPTEMBER 24
Ballroom, Pantlind Hotel, Grand Rapids

10:00 a.m.—First Meeting

1. Call to order by Speaker.
2. Report of Committee on Credentials.
3. Roll Call.
4. Appointment of Reference Committees
   (a) On Officers' Reports
   (b) On Reports of The Council
   (c) On Reports of Standing Committees
   (d) On Reports of Special Committees
   (e) On Constitution and By-Laws
   (f) On Resolutions
   (g) On Special Memberships
   (h) On Rules and Orders of Business
   (i) On Legislation and Public Relations
   (j) On Hygiene and Public Health
   (k) On Medical Service and Prepayment Insurance
   (l) On Miscellaneous Business
   (m) On Executive Session
   (n) On Emergency Medical Service
5. Speaker's Address—R. H. Baker, M.D., Pontiac
6. President's Address—C. E. Umphrey, M.D., Detroit
7. President-Elect's Address—O. O. Beck, M.D., Birmingham
8. Annual Report of The Council—R. J. Hubbell, M.D., Kalamazoo, Chairman
9. Report of Delegates to American Medical Association—W. D. Barrett, M.D., Detroit, Chairman
10. Brief of Annual Report of Woman's Auxiliary President—Mrs. O. D. Stryker, Mt. Clemens
11. Selection of Michigan's Foremost Family Physician
12. Resolutions**.
13. Supplementary Report of Committee on Credentials

MONDAY, SEPTEMBER 24
Ballroom, Pantlind Hotel, Grand Rapids

2:00 p.m.—Second Meeting

14. Supplementary Report of Committee on Credentials
15. Roll Call
16. Report of MSMS Standing Committees
    A. Committee on Postgraduate Medical Education
    B. Preventive Medicine Committee:
       (1) Rheumatic Fever Control Committee
       (2) Cancer Control Committee (and sub-committees)
       (3) Maternal Health Committee
       (4) Venereal Disease Control Committee
       (5) Tuberculosis Control Committee
       (6) Industrial Health Committee
       (7) Mental Hygiene Committee
       (8) Child Welfare Committee
           (a) Sub-Committee on Hearing Defects
           (b) Sub-Committee of Ophthalmologists
       (9) Iodized Salt Committee
       (10) Geriatrics Committee
           (a) Sub-Committee on Diabetes Control
           (b) Sub-Committee to Study Problem of Caring for Aged
       (11) Committee on Infectious Diarrhea
    C. Committee on Distribution of Medical Care
    D. Committee on Public Relations (and sub-committees)
    E. Committee on Ethics
    F. Legislative Committee
    G. Legislative Study Committee
17. Reports of Special Committees
    A. Beaumont Memorial Committee
    B. Scientific Radio Committee
    C. Advisory Committee to Woman's Auxiliary
    D. Liaison Committee with State Medical Assistants Society
    E. Advisory Committee to National Foundation for Infantile Paralysis
    F. Committee on Increase of Medical Students Graduated from Michigan Medical Schools

Reports of the Committees of The Council, including Committee on Scientific Work, are included in the Annual Report of the Council

MONDAY, SEPTEMBER 24
Ballroom, Pantlind Hotel, Grand Rapids

8:00 p.m.—Third Meeting

18. Supplementary Report of Committee on Credentials
19. Roll Call
20. Unfinished Business
21. New Business†
22. Report of Reference Committees
    (a) On Officers' Reports
    (b) On Reports of The Council
    (c) On Reports of Standing Committees
    (d) On Reports of Special Committees
    (e) On Constitution and By-Laws
    (f) On Resolutions
    (g) On Special Memberships
    (h) On Rules and Order of Business
    (i) On Legislation and Public Relations
    (j) On Hygiene and Public Health
    (k) On Medical Service and Pre-payment Insurance
    (l) On Miscellaneous Business
    (m) On Executive Session
    (n) On Emergency Medical Service

*See the Constitution Articles IV, VII and XII, and the By-Laws, Chapter 8 on "House of Delegates."

**All Resolutions, special reports, and new business shall be presented in triplicate (By-Laws Chapter 8, Section 10-m).

†All Resolutions, special reports, and new business shall be presented in triplicate (By-Laws, Chapter 8, Section 10-m).

TUESDAY, SEPTEMBER 25

Ballroom, Pantlind Hotel, Grand Rapids

10:00 a.m.—Fourth Meeting

23. Supplementary Report of Committee on Credentials
24. Roll Call
25. Unfinished Business
26. New Business
27. Supplementary Reports of Reference Committees

TUESDAY, SEPTEMBER 25

Ballroom, Pantlind Hotel, Grand Rapids

8:00 p.m.—Fifth Meeting

28. (Topic to be announced) by John W. Cline, M.D., San Francisco, Calif., President of the American Medical Association
29. Supplementary Report of Committee on Credentials
30. Roll Call
31. Unfinished Business
32. Supplementary Report of The Council
33. Supplementary Reports of Reference Committees
34. Elections
    - (a) Councilors
      - 1st District—L. W. Hull, M.D., Detroit—Incumbent
      - 4th District—R. J. Hubbell, M.D., Kalamazoo—Incumbent
      - 5th District—J. D. Miller, M.D., Grand Rapids, Incumbent
      - 6th District—R. C. Pochert, M.D., Owosso—Incumbent
    - (b) Delegates to American Medical Association
      - L. G. Christian, M.D., Lansing—Incumbent
      - W. A. Hyland, M.D., Grand Rapids—Incumbent
      - R. A. Johnson, M.D., Detroit—Incumbent
    - (c) Alternate Delegates to the American Medical Association
      - H. H. Cummings, M.D., Ann Arbor—Incumbent
      - E. C. Texter, M.D., Detroit—Incumbent
      - Also two other Alternate Delegates, so that each of the six Delegates has an Alternate
    - (d) President-Elect
    - (e) Speaker of House of Delegates
    - (f) Vice Speaker of House of Delegates
35. Adjournment.

LARGEST EXHIBIT IN MSMS HISTORY

The Exhibit Section at the MSMS Annual Session, Grand Rapids, September 26-27-28, 1951, will include the largest number of spaces in the history of the Society—139 booths. This is a greater exhibit than at many national meetings.

In some respects, this year's exhibit will be as interesting and desirable to doctors of medicine as the papers presented in the meeting room. The exhibit section will bring tangible values to those doctors of medicine who inspect it.

Have You Made Your
HOTEL RESERVATIONS?

MICHIGAN STATE MEDICAL SOCIETY
86th Annual Session

Grand Rapids, September 26-27-28, 1951

E. J. Brunette, Secretary, Committee on Hotels,
Michigan State Medical Society 86th Annual Session,
c/o Pantlind Hotel, Grand Rapids, Michigan

Please make hotel reservation(s) as indicated below:

Hotel .....(1st choice)

Hotel .....(2nd choice)

.....Single Room(s)

.....Double Room(s) for .....persons

.....Twin Bedded Room(s) for .....persons

Arriving September ..... hour.....A.M.....P.M.

Leaving September ..... hour.....A.M.....P.M.

(Names and addresses of all applicants including person making reservation.)

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.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Date ..... Signature .....

Address .....City .....

TENTATIVE OUTLINE OF 1951 ASSEMBLY SPEAKERS

86th Annual Session, Michigan State Medical Society

Grand Rapids, September, 1951

Time	Wednesday September 26	Thursday September 27	Friday September 28
A.M. 8:30-9:00	Registration. Exhibits open.	Registration. Exhibits open.	Registration. Exhibits open.
9:00-9:30	*Surgery* R. H. Smithwick, M.D. Boston	*Gynecology* A. C. Barnes, M.D. Columbus, Ohio	*Medicine* (Not decided)
9:30-10:00	*Medicine* Sara M. Jordan, M.D. Boston	*Ophthalmology* D. B. Kirby, M.D. New York City	*Dermatology & Syphilology* S. W. Becker, M.D. Chicago
10:00-11:00	Intermission to View Exhibits.	Intermission to View Exhibits.	Intermission to View Exhibits.
11:00-11:30	*General Practice* (Not decided)	*Pediatrics* A. J. Horesh, M.D. Cleveland, Ohio	*General Practice* E. L. Sevringhaus, M.D. Nutley, N. J.
11:30-12:00	*Dermatology & Syphilology* Stephen Rothman, M.D. Chicago	*Public Health & Preventive Medicine* F. H. Top, M.D. Minneapolis, Minn.	*Nervous & Mental Diseases* (Not decided)
P.M. 12:00-1:30	4 Section Meetings *Dermatology & Syphilology* Stephen Rothman, M.D. Chicago *Urology* A. I. Dodson, M.D. Richmond, Va. *Gynecology & Obstetrics* A. H. Aldridge, M.D. New York City *Otolaryngology* H. L. Williams, M.D. Rochester, Minn.	6 Section Meetings *Pediatrics* A. J. Horesh, M.D. Cleveland, Ohio *Surgery* (Not decided) *Ophthalmology* D. B. Kirby, M.D. New York City *Public Health & Preventive Medicine* F. H. Top, M.D. Minneapolis, Minn. *Gastroenterology & Proctology* (Not decided) *Anesthesia* E. M. Papper, M.D. New York City	4 Section Meetings *Pathology* J. W. Kernohan, M.D. Rochester, Minn. *Medicine* (Not decided) *General Practice* (Not decided) *Nervous & Mental Diseases* Thomas V. Hoagland, M.D. Detroit
1:30-2:00	*Pediatrics* W. J. Potts, M.D. Chicago	*Medicine* Alexander Marble, M.D. Boston, Mass.	*Surgery* W. P. Blount, M.D. Milwaukee
2:00-2:30	*Urology* A. I. Dodson, M.D. Richmond, Va.	*Gastroenterology & Proctology* Thomas T. Mackie Winston-Salem, N. C.	*Pediatrics* W. E. Nelson, M.D. Philadelphia
2:30-3:00	*Obstetrics* A. H. Aldridge, M.D. New York City	*Anesthesia* E. M. Papper, M.D. New York City	*Pathology* J. W. Kernohan, M.D. Rochester, Minn.
3:00-4:00	Intermission to View Exhibits.	Intermission to View Exhibits.	Intermission to View Exhibits. 3:00-3:30 p.m.
4:00-4:30	*Otolaryngology* H. L. Williams, M.D. Rochester, Minn.	*Obstetrics* L. M. Hellman, M.D. Brooklyn, N. Y.	*Surgery* 3:30-4:00 p.m. O. T. Clagett, M.D. Rochester, Minn.
4:30-5:00	*Surgery* A. H. Aldridge, M.D. New York City	*Surgery* C. A. Moyer, M.D. Dallas, Texas	*Medicine* 4:00-4:30 p.m. (Not decided)
5:00-6:00	Discussion Conferences.	Discussion Conferences.	Discussion Conferences. 4:30-5:30 p.m.
8:30-10:00	Officers' Night Biddle Lecture	10:30 p.m. State Society Night Entertainment	END OF ASSEMBLY

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SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

The majority of Michigan's local health officers gathered in Lansing early in April at the invitation of the State Health Commissioner to make their recommendations for the continuation of the state health program. The three-day Commissioner's Conference of Health Officers resulted in thirty-six recommendations from the local health directors.

The local health officers recommended that local health departments assume responsibility and leadership for civil defense medical and health services; institute accident prevention programs; give continued attention to housing as a public health factor; promote county sanitary codes; and take more responsibility for training of public health personnel.

The health officers favored enlargement of health jurisdictions to include sufficient population to support an adequate public health organization.

They wanted restored most of the services of the Michigan Department of Health which had to be deleted because of budget cuts. Particularly they wanted routine Rh typing on all prenatal blood specimens submitted for Kahn tests; quantitative serologic tests upon request of physician or health officer, and additional quantitative serologic tests for control of treatment. They asked the restoration of the state tuberculosis X-ray services to their former level. They recommended that the State Department of Health consider employing one or more consultants in housing to aid local health departments, and that the State Health Department take the initiative in developing model environmental health ordinances.

The local health officers favored pre-school examinations for all entering children, and vision and hearing screening by the State Health Department at the request of the local health department. They recommended the deletion from the list of currently reportable diseases "the less common or the less dangerous" ones. They endorsed the fluoridation of public water supplies for prevention of dental caries and favored local health department supervision of municipal water supplies.

These and other recommendations to the Commissioner have been submitted to all local health officers of the state and to the Division Directors of the State Health Department for consideration and application in the state health program.

More than 700 additional public health workers are needed in Michigan to fill vacancies and to meet minimum standards set by the American Public Health Association. The recommendations call for one physician and one sanitarian for each 25,000 people in a state. This would mean that Michigan needs twenty-nine additional public health physicians and thirty-four additional sanitarians. To fill vacancies and provide public health nursing services according to the recommended ratio of one nurse to every 5,000 people, an additional 647 public health nurses are needed to supplement those now employed by local agencies.

Background information and instructions for recording causes of death in proper sequence on the new form of death certificate is given in a new fifteen-minute sound film strip, "Medical Certification of Causes of Death," recently added to the Film Loan Library of the Michigan Department of Health.

The strip distributed by the National Office of Vital Statistics stresses the importance of proper sequence in classification of official mortality statistics particularly for measuring health and medical progress and planning health programs.

The strip is designed primarily for physicians and hospital personnel who fill out death certificates. Requests for use of the strip should be addressed to the Visual Education Service, Michigan Department of Health, Lansing 4, Michigan.

To extend the benefits of the vision services of the Michigan Department of Health to as large a share of Michigan school children as possible the vision consultant of the Department in co-operation with the teacher-training institutions of the state will conduct short courses to train local vision screening technicians during the summer. The local technicians usually employed by the local boards of education, service clubs interested in children, or health departments, do the initial screening in the vision testing program. Thirty-three such technicians were trained in summer courses last year.

Investigators assigned to the local health departments of the state by the Division of Tuberculosis and Venereal Disease Control who previously have worked primarily in Venereal Disease Control now are expediting local tuberculosis control programs. They assist local health departments and physicians in contact finding, case follow-up, work with recalcitrant patients, investigation of home facilities for the care of the patient eligible for release from a sanatorium and other tuberculosis control problems. Training in the tuberculosis control field was recently provided to the investigators in the Michigan Department of Health.

A copy of the 1951 revision of the Michigan Regulations for the Control of Communicable Disease soon will be mailed to each physician in the state. There is already one copy of the little "red book" in each local health department office.

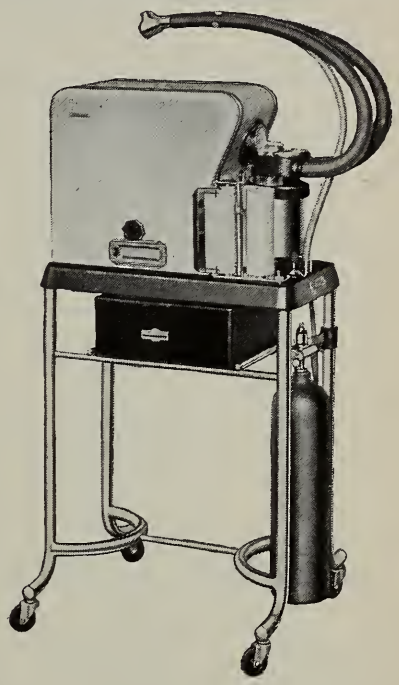
Two articles on venereal disease control in Michigan are contained in the April, 1951, issue of the *Jour-*

(Continued on Page 534)

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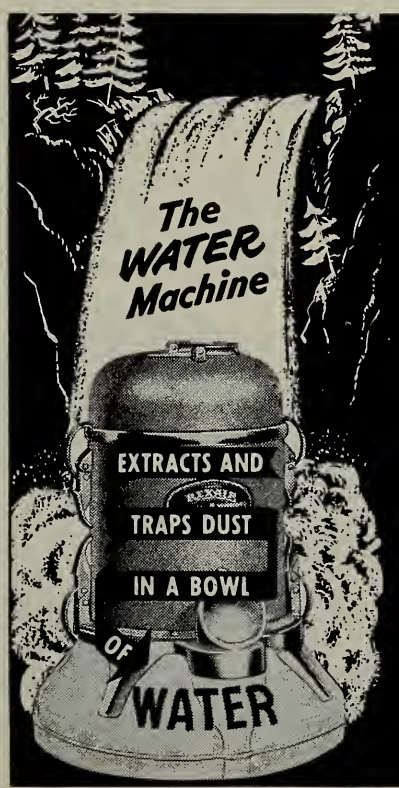
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Head Pain as a Diagnostic Lead

Frequently the presence of head pain is overlooked. The physician learns of it only if he has made an effort to elicit the information. Since the etiology of the pain is the basis of rational management, the patient should be warned against taking medication before diagnosis is made.

Friedman[1] deplores the tendency to call any chronic recurring headache migraine. Careful history-taking and full physical and neurological examinations are essential for accurate diagnosis. A good starting point is a description of the headache — its character, laterality, frequency and intensity.[2]

The following chart gives briefly the primary diagnostic leads and treatment for the most common types of headache.

Etiology of Headache	Primary Diagnostic Data	Primary Therapy
Inflammatory e.g., Meningitis Abscess	Inflammation of intracranial structures; fever; leucocytosis; bacteriologic diag.	Specific: sulfonamides and antibiotics. Symptomatic: analgesics.
Tumor	Pain varies as spinal press. changes; skull X-ray.	Specific: surgery. Symptomatic, analgesics &/or hypnotics.
Sinusitis	Sinus congestion and infection; cloudy X-ray.	Specific: antibiotics and drainage. Symptomatic: analgesics.
Hypertensive	Hypertension present but pain not related to b. p. level; Dihydroergotamine. relieves pain.	General hypertension therapy; sedation. Symptomatic: analgesics.
Migraine & other vascular headaches	Headache: recurrent, intense, throbbing. No organic causation; migraine in family; patient: energetic, perfectionist. Visual prodromata; g-i. upset during headache.	To abort attack: oral ergotamine plus caffeine. General: adjustment to minimize nervous stress.

Data here tabulated is from: Wolf, G., Jr.,[3] and Friedman, A. P.[4]

Cecil[5] ranks vascular headaches, e.g., migraine and tension headaches, as the most commonly encountered of all. Because of their functional nature and usual recurrence at frequent intervals, they present a long-term therapeutic problem.

Therapy is conducted along two lines:

1) Psychotherapy to reduce the frequency of attacks. This consists mainly of advice on emotional adjustment to stressful situations and guidance toward a good balance between work and relaxation.

2) Treatment of the distressing attack to prevent the usual period of incapacitation. Many investigators have reported that ergotamine preparations are effective for relief of the acute migraine attack in 80% of cases.[1,6] *The drug is given immediately when an attack is approaching and dosage adjusted to the needs of the individual.*

1. Friedman, A. P. and von Storch, T.: 99th A.M.A. Session, June 1950. 2. Butler, S. and Hall, F.: M. Clin. N. Amer., p. 1439 (Sept.) 1949. 3. Wolf, G., Jr.: M. J. 54:25, 1951. 4. Friedman, A. P. and Conn, H. T.: Current Therapy, 1950, p. 563; Saunders Co., Phila. 5. Cecil, R. L.: A Textbook of Medicine, ed. 7, 1948, p. 1483; Saunders Co., Phila. 6. Horton, B. et al: Staff Meet. of Mayo Clinic 20:241, 1945.

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(Continued from Page 532)

nal of Venereal Disease Information. They are: "A New Approach to Venereal Disease Education at Michigan Fairs" by John A. Cowan, M.D., Director of the Division of Tuberculosis and Venereal Disease Control, and "Control Serum in Serodiagnosis of Syphilis," by M. D. Kurtz, D.V.M., and E. M. Hill, M.S., of the Division of Laboratories.

May is Child Health Month in Michigan. The April issue of *Michigan Public Health* will carry articles on children's immunization, nutrition, hearing, vision, dental health, pre-school examination, mental health and poliomyelitis and nursery schools.

This Department is urging special attention to the home accident prevention aspects of the spring clean-up of home and grounds.

A total of 1,494 Michigan people were killed in home accidents in their own homes in 1949, while 1,493 were killed in traffic accidents in the same year.

Almost three out of four of the fatal home accidents were falls—falls from one level to another or tripping or stumbling. The great majority of those killed by falls were mature people. Fires were second in importance as a cause of fatal home accidents. They killed people of all ages.

Stressing that the householder usually knows of the hazard which endangers life in his home, the Department prepared a check list for spring clean-up of home accident hazards which was printed in the March issue of *Michigan Public Health.*

Freeman Hersey, M.D., former director of the Lenawee county health department, has been appointed Medical Co-ordinator of the state Civil Defense Program. He is responsible to the Office of Civil Defense through the State Health Commissioner. His offices are in the Prudden Building, Lansing.

E. J. Brenner, M.D., acting director of the Alger Schoolcraft District Health Department, has resigned. Mr. A. W. Heitman is now serving as acting director of the Department.

SENATE ARMED SERVICES COMMITTEE HEARINGS

Proposals advanced at the committee hearings by Mrs. Rosenberg and Secretary Marshall include government-controlled selection of college students; a plan of Federal scholarships, and a plan of free medical rehabilitation for men with physical defects through the United States Public Health Service or Veterans Administration.

On this testimony there can be little doubt as to the plans to regiment the youth of America.—PAUL SHAFER.

Say you saw it in the Journal of the Michigan State Medical Society

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Communication

409 Division South
Grand Rapids, Michigan
March 26, 1951

Wilfrid Haughey, M.D., Editor
Journal of the Michigan State Medical Society
610 Post Building
Battle Creek, Michigan

Dear Sir:

At this time I am making a preliminary report of a therapeutic procedure which may be of interest to the medical profession. In the *American Journal of the Medical Sciences* (211:448, 1946), T. and J. Gillman from the union of South Africa reported the efficacy of Speransky's spinal pumping procedure in producing complete remissions in rheumatic fever cases which were refractory to all other therapeutic measures. Some of these cases had skin rashes and acne which cleared following this procedure. I want to report the following cases and their results.

The first was a fifty-six-year-old white man who had rheumatoid arthritis which was in an activated state. He also had a mild seborrheic dermatitis across the bridge of his nose extending onto both malar areas. The spinal pumping procedure was carried out exactly as described by the Gillmans. There was no change in the status of the arthritis, but the dermatitis completely cleared within one day. There were no changes in the eosinophil counts done before and four hours after the pumping procedure.

The second case was that of a thirty-two-year-old white woman who developed psoriasis on the legs at the age of four and has had it since. When she got rheumatoid arthritis at the age of fourteen, the psoriasis became more widespread over the body, including the face. This had never cleared completely on any regimen. In December, 1950, she was treated in the Hospital with ACTH for nine days. At this time only her legs had some weeping lesions. These promptly dried and the arthritic pains disappeared. After nine days on ACTH, she was sent home on cortisone orally. After two weeks it was stopped because she became depressed and had fullness of the face. While still on this, the psoriatic lesions began to recur and then became generalized over the whole body surface, arms, legs, and face.

On March 13, 1951, she was re-admitted to the hospital. The skin was very scaly, a deep red color, pruritic, and fissured with weeping. Her temperature was 101 at 4 P.M. and 101.5 at 8 P.M. On March 14, at 8 A.M., her temperature was 98.5. Speransky's spinal pumping procedure was carried out. This was uneventful. At 4 P.M. her temperature was 101.5, and she had a severe headache. At 10 P.M. her temperature was 103, and she was still feeling poorly because of the headache. The skin, however, was feel-

(Continued on Page 538)

Say you saw it in the Journal of the Michigan State Medical Society



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A PREFERRED BEVERAGE FOR HOME AND HOSPITAL

(Continued from Page 536)

ing better as there was no more pruritus present and it felt drier. On March 15, the skin was dry, no pruritus was present, and the deep red color was fading. The fissures in the antecubital fossae were gone. The joints were aching a little more than when she entered the hospital. On March 16 she was feeling better and eating better. The skin was dry and now was pink in color. There was some peeling of the skin. On March 17 the skin was peeling in large sheets. In these areas the skin was smooth, thin, and pink and had a burning sensation. Her general condition was improved except for the joint pains for which she was given nucorsal 2 tablets q.i.d. These gave some relief. Vaseline was placed over the skin b.i.d. The skin continued to improve daily. It now has only a pink color and is smooth except on the arms where there is still some peeling. There are no lesions of psoriasis present anywhere on the body. The patient stated that her skin had never cleared as rapidly or as completely as it has this time.

After the first day, the temperature never was higher than 99.6, and usually was only 99. The arthritis was unrelieved during this period of observation. She was placed on ACTH again without relief of the joint pains. The spinal fluid, which was removed at the end of the pumping procedure, had the following findings: 2 lymphocytes, sugar—55 mg. per cent, protein—12 mg. per cent, and Pandy—negative. These findings do not indicate any acute irritation to the meninges to have occurred.

Another case of rheumatoid arthritis in a middle-aged man underwent this procedure without incident and without any benefit to his inflamed joints.

Although there are only two cases reported at this time, in view of the studies that have been carried out with ACTH and cortisone on skin and rheumatic fever disease states, it was thought that this report would interest others working in these fields. If the work of Speransky and the Gillmans on rheumatic fever, and the Gillmans and this on some types of skin diseases are substantiated, there will be a new approach to the study of these conditions. One may venture to ask whether this procedure stimulates the pituitary-adrenal axis to greater activity by a milking action on the pituitary gland, thereby precipitating a remission. Whatever the answer may be, other cases are being studied and will be reported upon later.

Sincerely yours,

MICHAEL E. ELLIS, M.D.

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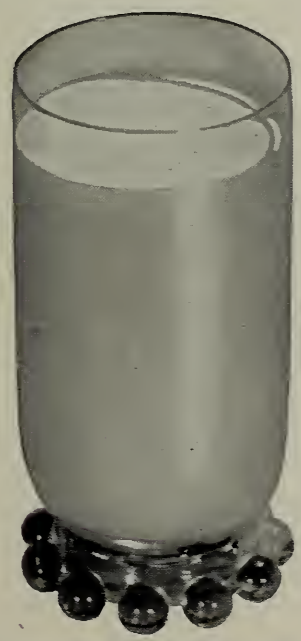


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MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

GRAND RAPIDS—September 26-27-28, 1951

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

June 5	St. Clair County Medical Society's Clinic Day. Black River Country Club
June 22-24	Upper Peninsula Medical Society Annual Meeting
July 26-27	Annual Coller-Penberthy Medical-Surgical Conference (sponsored by Grand Traverse - Leelanau - Benzie County Medical Society) Traverse City
Sept. 26-27-28	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION Grand Rapids
October 12	Third Michigan Cancer Conference East Lansing
Autumn	MSMS Postgraduate Extramural Courses State-wide
Oct. or Nov.	American Academy of General Practice of Wayne County Detroit
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health) Flint

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

* * *

Corrections: S. W. Hartwell, M.D., of Muskegon was listed in error (on page 342 of March JMSMS) as Chairman of Committee on Emergency Medical Service. This should have read H. L. Gordon, M.D., of Detroit, Michigan.

Author John J. Grebe, Ph.D., is from Midland, Michigan, not Midland, Washington (page 271 of March JMSMS).

* * *

F. A. Coller, M.D., Ann Arbor, was presented with the Buffalo Surgical Society "Roswell Park Memorial Medal" for outstanding surgical achievement on February 15, in Buffalo, upon conclusion of the Roswell Park Lecture entitled "Indications for Thyroid Surgery with Present-Day Knowledge of Antithyroid Drugs and Radioactive Iodine." Congratulations, Dr. Coller!

* * *

R. H. Springer, M.D., Centreville, recently addressed the Women's Clubs and the Lions Club of Centreville on the subject "Plans for Federalized Medicine."

The American Academy of Allergy offers a postgraduate course in allergy sponsored by the Faculty of Medicine of McGill University, Montreal, Canada, to be held in the ampitheatre of the Montreal Neurological Institute, June 14-16. For program and full information, write Bram Rose, M.D., Royal Victoria Hospital, Montreal.

* * *

The Industrial Congress of Physical Medicine, under the presidency of Lord Horder, will hold its annual Congress in London, July 14-19, 1952. For program and full details, write the Secretary at 45 Lincoln's Infields, London, W.C.2, England.

* * *

The American College of Chest Physicians will hold its 17th Annual Meeting at the Ambassador Hotel, Atlantic City, N. J., June 7-10. For program, write either Regent Wm. A. Hudson, M.D., 1553 Woodward Avenue, Detroit, or Governor Willard B. Howes, M.D., 1800 Tuxedo Avenue, Detroit.

* * *

The University of Michigan recently received $7,000 from the Damon Runyon Cancer Fund for research, through the Fraternal Order of Eagles.

* * *

The American Academy of General Practice registered 4,222 at its San Francisco, 1951 Assembly, including 1,936 doctors of medicine and 628 residents and interns.

* * *

Leon DeVel, M.D., Grand Rapids, Medical Co-ordinator of the MSMS Rheumatic Fever Control Program, has been elected a member of the American Council on Rheumatic Fever of the American Heart Association.

Congratulations, Doctor DeVel!

* * *

In memoriam of **Burt Russell Shurley, M.D.,** of Detroit, was published in the *Transactions American Academy of Ophthalmology and Otolaryngology,* January-February, 1951.

* * *

Russell F. Staudacher, for the past two years Associate Public Relations Counsel of the Michigan State Medical Society, recently announced his decision to join the staff of the American Medical Association as of May 1, 1951.

Mr. Staudacher has accepted an appointment with the Council On Medical Service headed by Mr. Thos. A. Hendricks and will become a staff associate.

Prior to his association with MSMS, Mr. Staudacher was active in public relations for several organizations. From 1947 to 1949, he was connected with Frank Block and Associates of St. Louis, Missouri, Public Relations Counselors, where he worked on the account of the Midwestern Manufacturers of Paperboard.

Air Corps public relations occupied his attention from 1942 to 1946 when he entered the Reserve Corps as a Major. He was a member of the Air Corps unit which made history with its air drop of the atomic bomb over Bikini in 1945 and before this served three years in the European Theater.

Mr. and Mrs. Staudacher (the latter having been a secretary of L. Fernald Foster, M.D., in his Bay City office) and their family will move to Chicago in June.

* * *

At the New Orleans Graduate Medical Assembly of March 5-8, 1951, the following Michigan Doctors of Medicine were registered: Drs. Frank M. Burroughs, Grandville; Jerome W. Conn, Ann Arbor; Fred P. Currier, Grand Rapids; James N. Dewane, Menominee; Isadore H. Gutow, Flint; J. J. Gutow, Flint; W. H. Kern, Garden City; H. D. McEachran, Iron Mountain; Robert J. Meade, Lansing; Paul E. Medema, Muskegon; George Moriarty, Detroit; Allan R. Peterson, Daggett; H. Marvin Pollard, Ann Arbor; William G. Winter, Holland; George H. Wynn, Adrian.

STANDARDS OF JMSMS ADVERTISERS

The advertising pages carry important messages from reliable, ethical, firms and are equally as significant to the reader as are the text pages. They furnish him with sources of information for reviewing products and services. By these means, he can learn of the changing variety of medical products suited to his specific need in his daily practice and for personal use. It is second nature for him to read his journal's advertising pages.

Furthermore, the doctor of medicine is aware of the standards required for acceptance of advertising in his journal; he co-operates by purchasing, or prescribing, featured products. The advertising standards are similar to those adopted for publications of the AMA.

The J. F. Hartz Company was host to the medical profession Friday evening, March 16, 1951, on the occasion of the formal opening of its new headquarters building at 780 W. Eight Mile Road, Ferndale, Michigan. The opening of the new Hartz laboratories and administration building was attended by hundreds of physicians. The entire Hartz staff, including laboratory technicians, was on hand to fully man and operate all equipment so



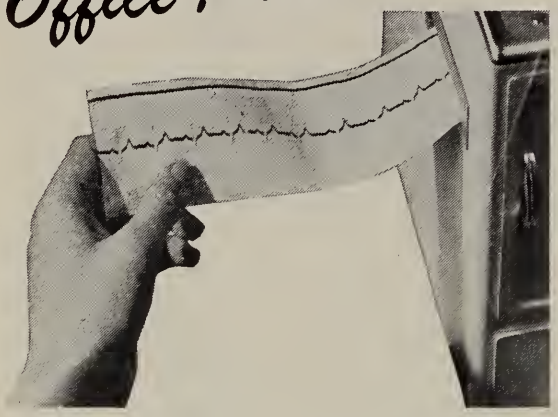
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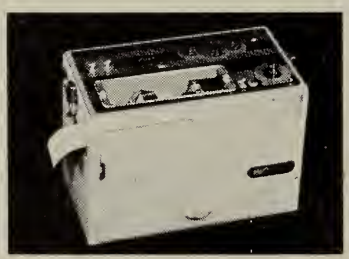
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physicians could obtain a first-hand view of the various processes and procedures in the manufacture of Hartz pharmaceuticals.

The tuberculosis death rate continues slowly downward in Michigan. According to provisional figures for 1950 there were 1,262 tuberculosis deaths in the state—for an all-time low rate of 19.8.

Although this is a reduction of nearly 10%, it still represents an average of more than 100 tuberculosis deaths per month—needless deaths, since tuberculosis is a preventable disease. To consider the job done and relax vigilance would be to risk the gains now made.

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(over)

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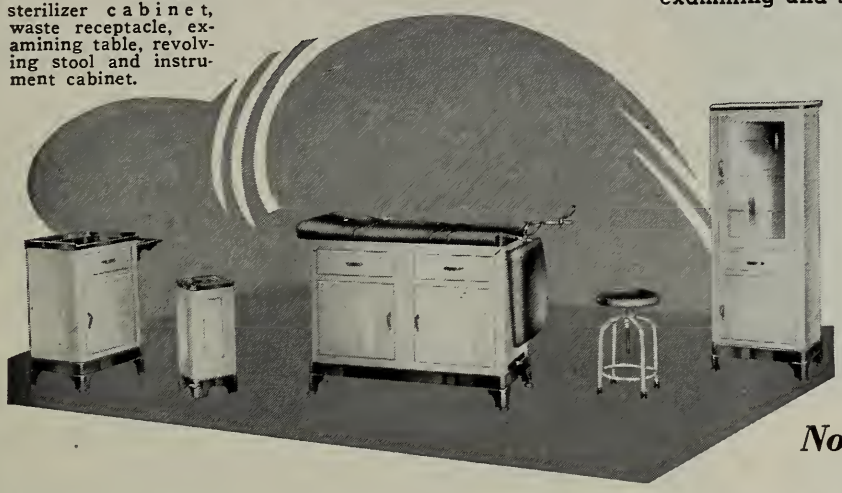
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Michigan Authors

P. C. Martineau, M.D., of Detroit, published an article, "Hamartomatous, Cholangiohepatoma," in *The Journal of the American Medical Association,* March 17, 1951.

Isadore Lampe, M.D., of Ann Arbor, published an article, "Malignant Neoplasms of the Tongue, Tonsil, and Hypopharynx: Evaluation of Radiation Therapy," in the *Transactions American Academy of Ophthalmology and Otolaryngology,* January-February, 1951.

J. A. Olson, M.D.; E. H. Steffensen, M.D.; R. W. Smith, M.D.; R. R. Margulis, M.D., and E L. Whitney, M.D., of Detroit, published an article, "Use of Adrenocorticotropic Hormone and Cortisone in Ocular Disease," in the AMA *Archives of Ophthalmology,* March, 1951.

E. H. Steffensen, M.D.; A. J. Wishbow, M.D.; F. O. Nagle, M.D.; R. W. Smith, M.D., and E L. Whitney, M.D., of Detroit, published an article, "Topical Cortisone in the Treatment of Anderer Segment Eye Disease," in the *American Journal of Ophthalmology,* April, 1951.

William S. McNary, Executive Director, Michigan Hospital Service, Detroit, published an article, "Hospitals Must Make the Decision," in the *Hospitals Journal,* April, 1951.

Leo H. Bartemeier, M.D., Detroit, is the author of an original article "The Attitude of the Physician" which appeared in JAMA of April 14, 1951.

Warren R. Mullen, Ann Arbor, President of the Student American Medical Association, is the author of an article entitled "The Student American Medical Association" which appears in JAMA of April 14, 1951.

Meyer O. Cantor, M.D., Charles S. Kennedy, M.D. and Roland P. Reynolds, M.D., Detroit, are the authors of an original article entitled "Gelfoan and Thrombin in Treatment of Massive Gastroduodenal Hemorrhage" which appeared in the December 1950 issue of *The American Journal of Surgery.*

* * *

Printer's Ink, a national magazine on advertising, says that under Government administration, the cost of National Service Life Insurance is more costly than the premium income. The magazine points out that it would be cheaper for the Government to pay out $10,000 in cash to the family of each dead serviceman without the formality of keeping in operation the costly setup by which veterans' policies are handled. The premium income doesn't even begin to pay the cost of *administration,* much less the actual death claims. And yet, some people think the Government should run more things.

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BON SECOURS HOSPITAL

Annual Clinic Day Program
Tuesday, June 5, 1951

Morning Session—10:00 A.M.
Moderator—E. G. ALDRICH, M.D.

Multiple Polyposis of Colon and Rectum.....
J. F. WENZEL, M.D.
Hiatus Herniain Adults, Clinical Aspects.....
L. E. HEAVNER, M.D.
Prolapse of the Gastric Mucosa.....R. J. REICHLING, M.D.
Adrenal Insufficiency.....N. W. DIEBEL, M.D.

Moderator—G. B. OHMART, M.D.

Sympathectomy in Arteriosclerotic Peripheral Vascular Disease.....D. N. SWEENY, M.D.
Cervicobrachialgia .....G. R. GRANGER, M.D.
The Anal Gland.....R. M. BURKE, M.D.
Treatment of Cerebral Angiospasm.....R. L. FISHER, M.D.
Early Ambulation.....E. J. TAMBLYN, M.D.

Luncheon—12:15 P.M.
Courtesy of—Sisters of Bon Secours Hospital

Evening Session
Moderator—L. E. HEAVNER, M.D.

Intussusception .....E. F. LANG, M.D.
Brief Summary of the Clinical Physiology of Potassium.....H. STALKER, M.D.
Congenital Polycystic Disease of the Kidney Report of Cases with Lantern Slides.....
I. G. DOWNER, M.D.
Ventricular Tachycardia.....H. A. KLEIN, M.D.
Diverticula of Stomach and Duodenum.....
H. M. FULLER, M.D.
The Surgical Treatment of Deafness....J. E. COYLE, M.D.
Use of Blood, Plasma, and Blood Derivatives.....
J. A. KASPER, M.D.
Male Infertility.....W. R. FLORA, M.D.

Luncheon—10:00 P.M.
Courtesy of—Medical Staff of Bon Secours Hospital

THE SEVENTH ST. CLAIR COUNTY CLINIC DAY

Sponsored by the St. Clair County Medical Society
Tuesday, June 5, 1951

Morning Session—10:00 A.M.

Functional Uterine Bleeding
R. B. Greenblatt, M.D., Professor of Endocrinology
Medical College, University of Georgia
Diagnosis and Treatment of Testicular Defects
Warren Nelson, M.D., Professor of Anatomy
University of Iowa
Steroid Hormones in the Treatment of Various Types of Malignancies
Edward Henderson, M.D., Medical Director
Schering Corporation, Bloomfield, N. J.

Luncheon—1:30 P.M.

Afternoon Session—2:30 P.M.

Physiology and Pathology of the Adrenal Cortex
Warren Nelson, M.D.
Cortisone and Insulin in the Treatment of Rheumatoid Arthritis
Edward Henderson, M.D.
ACTH—Indication and Limitations
Robert Greenblatt, M.D.

Cocktail Hour—5:00 P.M.

Dinner—7:00 P.M.

Evening Session—8:00 P.M.

Quiz Program
Robert Greenblatt, M.D., Moderator
Edward Henderson, M.D.
Warren Nelson, M.D.

What Can Be Done For The Alcoholic?

Assuming that alcoholism is a disease and not a voluntary state, a great deal can be done for this type of patient.

The Keeley Institute, specializing exclusively in the care of the alcoholic for over half a century, has developed a smooth rehabilitation program to guide the patient back to a normal regimen of living.

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Nauseants, reactors and aversion methods are *not* employed—consequently the patient's confidence is quickly obtained and maintained.

Special emphasis is placed on the nutrition phase of treatment—an excellent cuisine is supplemented by vitamins, lipotropic factors and other dietary elements as indicated.

Careful evaluation of the patient's psychosomatic background is made by the attending staff of physicians, and group re-education supplemented by individual consultation helps restore a normal mental attitude.

Upon completion of the course, lasting about 4 weeks, the patient is referred back to his physician to whom a full progress report is given.

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Arizona	608	$50	.....
Arkansas	1,225	$20	.....
California	10,634	$40	.....
Colorado	1,712	$50	.....
Delaware	315	$25	.....
Dist. of Columbia	1,736	$40	.....
Florida	2,038	$40	.....
Georgia	2,257	$15	.....
Idaho	404	$30	$25
Illinois	9,810	$20	.....
Indiana	3,700	$35	.....
Iowa	2,516	$50	.....
Kentucky	1,970	$15	.....
Louisiana	1,907	$25	.....
Maine	763	$35	.....
Massachusetts	6,500	$35	.....
Michigan	5,147	$45	.....
Minnesota	3,400	$30	.....
Mississippi	1,100	$15	.....
Missouri	3,600	$15	.....
Montana	443	$50	.....
Nevada	141	$75	.....
Nebraska	1,200	$30	.....
New Hampshire	640	$40	.....
New Jersey	5,295	$25	.....
New Mexico	386	$30	.....
New York	22,975	$20	.....
North Carolina	2,500	$40	.....
North Dakota	381	$50	.....
Ohio	7,600	$15	.....
Oklahoma	1,489	$42	.....
Pennsylvania	10,985	$23	.....
Rhode Island	800	$40	.....
South Carolina	1,178	$20	.....
South Dakota	434	$50	.....
Tennessee	2,158	$25	.....
Texas	6,167	$35	.....
Utah	635	$25	.....
Virginia	2,233	$25	.....
Vermont	370	$35	.....
Washington	2,200	$35	.....
West Virginia	1,452	$15	$10
Wisconsin	2,800	$50	.....
Wyoming	196	$25	.....

* * *

Ralph J. Campbell, a British doctor, "who escaped Utopia" to practice in San Francisco, has this to say in *The Insurance Field Magazine:*

"The hospitals are overloaded and the general practitioners are overloaded. I am going to quote you a figure which I am quite positive none of you will believe, but I am equally positive in telling you that it is a fact. The hospital that served the district where I was practicing had a waiting period for elective gynecological procedures of no less than three years. Now, they are not important conditions unless you happen to have one. If you are the person that is waiting for the 'gyn' procedure, it is desperately important for you, and yet the waiting period for those procedures was three years."

Ah, good old socialized medicine . . . . .



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Cook County Graduate School of Medicine

ANNOUNCES CONTINUOUS COURSES

SURGERY—Intensive Course in Surgical Technic, two weeks, starting May 14, June 4, June 18.
Surgical Technic, Surgical Anatomy and Clinical Surgery, four weeks, starting June 4, July 9, August 6.
Surgical Anatomy and Clinical Surgery, two weeks, starting May 14, June 18, July 23.
Surgery of Colon and Rectum, one week, starting June 4, September 17.
Esophageal Surgery, one week, starting June 4.
Thoracic Surgery, one week, starting June 11.
Gallbladder Surgery, ten hours, starting June 18.
Breast and Thyroid Surgery, one week, starting June 25.
Fractures and Traumatic Surgery, two weeks, starting June 18.

GYNECOLOGY—Intensive Course, two weeks, starting June 18, September 24.
Vaginal Approach to Pelvic Surgery, one week, starting June 11, September 17.

OBSTETRICS—Intensive Course, two weeks, starting June 4, September 10.

MEDICINE—Intensive General Course, two weeks, starting October 1.
Gastroenterology, two weeks, starting October 15.
Gastroscopy, two weeks, starting July 16.
Electrocardiography and Heart Disease, two weeks, starting July 16.
Liver and Biliary Diseases, one week, starting June 4.

PEDIATRICS—Cerebral Palsy, two weeks, starting July 9.
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Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

"YOUR PROSTATE GLAND." Letters from a Surgeon to His Father. By Reed M. Nesbit, M.D., Professor of Surgery, University of Michigan Medical School, Chief, Section on Urology, University Hospital, Ann Arbor, Michigan. Illustrations by Janet McLaughlin. Springfield, Illinois: Charles C Thomas, 1950. Price $2.00.

Reed Nesbit, of Ann Arbor, has written a great book. He wanted to impart needful information to his father, and wrote a series of letters, telling for the benefit of a layman, the story of the prostate gland, its characteristics, foibles and what to do about it. During the course of these letters, Mr. Nesbit had prostate surgery, but the letters continued. Fortunately, the letters have been published and are available for any person, especially the aged one, to read and benefit. About one person in three, over sixty-five, has enlarged prostate, and about half of these give difficulties of urination, many needing surgical relief. There is a discussion of the four types of operations done. The section on cancer is a very understanding explanation of what cancer is. Dr. Nesbit tells of the ease of diagnosis of prostatic hypertrophy by rectal examination, and says when a cancer is found by examination of a patient who seeks examination it is mostly too late. He mentions that women have been taught to have their breasts examined routinely and any lump investigated. He advocates that men over sixty-five have the same kind of rectal examination, when early cancers can be found and properly eliminated. Autopsies show that one man in five who dies at over sixty-five has cancer of the prostate. Routine examinations will find these and offer prolonged and happier lives.

SEXUAL FEAR. By Edwin W. Hirsch, B.S., M.D., Attending Urologist, Englewood Hospital, Chicago, Ill.; former Associate in Urology, College of Medicine, University of Illinois; Member A.M.A., American Urological Society. Garden City, N. Y.: Garden City Publishing Co., Inc., 1950. Price $3.00.

The first half of the book "Sexual Fear" is devoted to a recapitulation of the sexual practices of the ancients. The author apparently is attempting to give a background for fear on a sexual basis but only succeeds in rehashing oft-repeated fables and history. The author believes modern sexual fear dates from the French invasion of Italy under Charles VIII. He then discusses subjective and objective findings in the individual, attributing these symptoms to fear; fear founded on ignorance, Misconception and improper evaluation of published material relating to sex education is deplored. The treatment of sexual fear is a part of psychomatic medicine, time-consuming and exhausting, and must be preceded by a complete understanding of the patient's problem.

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*DIVELEY, REX L., "Foot Imbalance," J.A.M.A. 1510 et seq. (Nov. 17) 1934.

PROGRESS IN GYNECOLOGY. Volume II. Edited by Joe V. Meigs, M.D., Clinical Professor of Gynecology, Harvard Medical School; Chief of Staff of the Vincent Memorial Hospital, the Gynecological Service of the Massachusetts General Hospital; Surgeon, Pondville Hospital; Gynecologist, Palmer Memorial Hospital and Somers H. Sturgis, M.D., Clinical Associate in Gynecology, Harvard Medical School, Assistant Surgeon, Massachusetts General Hospital, Boston, Massachusetts. New York: Grune & Stratton, 1950. Price $9.50.

This new and larger edition of Progress in Gynecology offers the reader the most recent scientific advances in this field, and airs controversial ideas in the treatment of most gynecological and some obsetrical disorders, as the opinions of 78 physicians and surgeons are recorded in 70 concise chapters. In addition to the contributions of American authors, there are chapters by outstanding men from Denmark, England, France and Sweden. Chapters carried over from Volume I have been rewritten.

Diagnostic methods, cytological studies and the general physiology of the female reproductive system are presented nicely and the functional disorders are outlined in very readable form. The interrelationship of endocrine glands is adequately handled in less than 100 pages stressing only the salient points.

Considerable space is given to studies of sterility and reproduction, artificial insemination, et cetera. Infections and benign growths are treated very briefly, but considerable space (180 pages) is devoted to malignant growths, with emphasis on radiation treatment and technique. There is a fine section on operative technique with excellent descriptive plates and photographs of the various steps of major gynecological procedures.

The section on preoperative and postoperative care stresses the prevention and treatment of complications of surgery in the light of recent research on these topics. A final chapter presents a most practical chart to use as a guide to the selection of commercial preparations of endocrine products used in gynecology. Each chapter is followed by a bibliography which permits the reader to augment his knowledge of any topic he finds of unusual interest.

S.B.W.

THE RHESUS DANGER. Its Medical, Moral, and Legal Aspects. By R. N. C. McCurdy, M.B., Ch.B., D.P.H. Pp. 138. London: William Heineman, Medical Books, Ltd., 1950. Price, 5 shillings.

This small, paper-bound volume gives a very excellent philosophical discussion not only of the Rh factor and the Treatment of Erythroblastosis but extends into other problem, such as, the adoption of children, contraception; sterilization, artificial insemination; divorce, and abortion. This material is presented in a refreshing manner, although the title is somewhat misleading for the actual amount of space devoted to the Rh factor and its associated problems is very small. It is recommended particularly because of the unbiased vein in which it deals with the controversial aspects of the subjects previously mentioned. It is written for both the physician and the layman.

A.A.H.

DIABETES GUIDE BOOK for the Physician. New York: American Diabetes Association, 1950.

This small book was prepared by the Committee on Education of the American Diabetes Association. It has a stiff paper cover, pocket size and contains in an orderly fashion the necessary dietic principles by which one may treat sufferers of diabetes. Food values, diabetic implications and values, with substitutes, and prepared diets of various caloric totals. We would say almost indispensable for a ready reference, which the doctor may give to his patient.

FUNCTIONAL ANATOMY OF THE LIMBS AND BACK—A Text for Students of Physical Therapy and Others Interested in the Locomotor Apparatus. By W. Henry Hollinshead, A.B., M.S., Ph.D., Head of the Section on Anatomy, Mayo Clinic, Rochester; Professor of Anatomy, Mayo Foundation, University of Minnesota. 341 pages with 122 figures. Philadelphia: W. B. Saunders Co., 1951. Price $6.00.

This text is written for the student, particularly the non-medical student, but it has value to all who are interested in Physical Medicine. General information is

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covered in the early chapters that acquaints the reader with morphology and physiology which is important for his understanding of the anatomy and muscle function that follows.

The book is well illustrated with readily understandable drawings. These are particularly well done in the illustrations referring to muscle action.

For the medical student and graduate the book will be a source of ready reference and short review of functional anatomy and as such serves a useful purpose.

P.C.K.

THE PROSTATE GLAND. By Herbert R. Kenyon, M.D., Associate Clinical Professor, Department of Urology, New York University, Bellevue Medical Center. New York: Random House, 1951. Price $2.95.

In this book, "The Prostate Gland" written for the laity, the author presents a comprehensive treatise which is enlightening without being alarming. Such a book, written in non-technical language, enables the individual to understand the disabilities due to the prostate to which all adult males may fall heir. The author first discusses the anatomy and physiology of the gland and includes the all-important functional disorders in relation to sexual activity and reproduction. True pathology includes infections and obstructions as well as the relationship of systemic diseases. In discussing treatment, a realistic yet optomistic attitude is followed and all types of surgery are fully discussed. Carcinoma is discussed as a problem, and while no punches are pulled as to the gravity of the condition, the advances in therapy and research in conjunction with therapy give the readers hope for comfort and even cure.

YOU AND YOUR HEART. A Clinic for Layman on the Heart and Circulation. By H. M. Marvin, M.D. New York: Random House, 1950. Price $3.00.

"You and Your Heart" gives an exceptionally clear and understandable explanation of the normally functioning heart and circulatory system. It also offers a detailed explanation of the pathology of the heart and circulatory system. This information is presented in such a way that the average individual can understand it. The references to treatment, covering diet, exercise, nerve factors and medication, are presented so as to help the patient understand what the doctor is trying to accomplish. There is no question that the better the heart patient understands the nature of his ailment, the better attention he will give to his doctor's advice. I have submitted this book to a number of patients and feel it has been a definite help to us both.

M.J.C.

PROGRESS VOLUME to accompany Hyman's Integrated Practice of Medicine. An appraisal of latest developments in therapeutics prepared by Harold Thomas Hyman, M.D., to accompany his 4-volume Integrated Practice of Medicine. Contains cross reference to the original 4 volumes and an index system



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to all 5 volumes. 734 pages. Philadelphia and London: W. B. Saunders Company, 1950. Price $10.00.

The Progress Volume—a supplement to an integrated practice of medicine, has been thoroughly reviewed. The entire series has been a most valuable contribution to the science of medicine. The four previous volumes cover the entire field and the availiability of the information needed in diagnosis and differential diagnosis is outstanding. The Progress Volume now offers the same ready suggestions on therapy. The advances in therapeutics are coming so fast that it is difficult for the physician to acquire detailed information from the journals in a concise form. In the Progress Volume all the latest information is presented so that it can be used as a guide in the application of any of the late therapeutic agents. This book is a valuable addition to the doctor's library.

M.J.C.

CANCER AS I SEE IT. By Henry W. Abelmann, M.D., New York: Philosophical Library, 1951. Price $2.75.

Dr. Abelmann stresses the diagnosis of cancer early, and says that is where the control of the disease must start. He believes in the generic name cancer, and deplores the many names and classes of the disease which are recognized, and by their very number befog the issue. If a disease is malignant it is cancer in his book. He believes in the infectious nature of the disease, mentioned virus, parasites. His book is challenging, and well worth reading.

CONGENITAL PARALYSIS OF THE INFERIOR OBLIQUE

(Continued from Page 509)

as evidenced by failure of elevation of the eye to the horizontal plane, with the eye in full adduction.

2. Little if any secondary contracture of the direct antagonist (superior oblique).

3. As the eye is abducted, the limit of elevation will follow a straight line from the inner canthus to normal limits of elevations in the midline.

4. The affected eye in the temporal field will show a near normal muscle balance.

5. There is usually a widening of the palpebral fissure on adduction.

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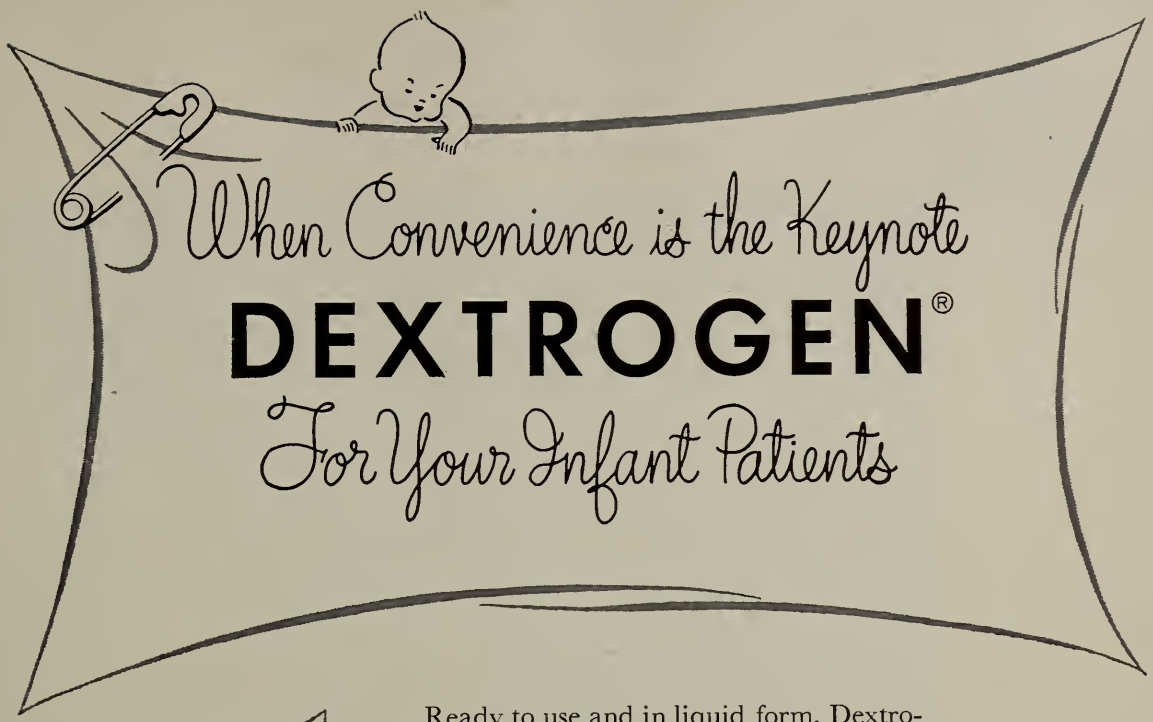
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MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION, GRAND RAPIDS

September 26-27-28, 1951

Guest speakers who have already accepted include: A. H. Aldridge, M.D., New York City; A. C. Barnes, M.D., Columbus, Ohio; S. W. Becker, M.D., Chicago; W. P. Blount, M.D., Milwaukee; O. T. Clagett, M.D., Rochester, Minn.; A. I. Dodson M.D., Richmond, Va., A. J. Horesh, M.D., Cleveland; Sara M. Jordan, M.D., Boston; J. W. Kernohan, M.D., Rochester, Minn.; Daniel B. Kirby, M.D., New York City; T. T. Mackie, M.D., Winston-Salem, N. C.; Alexander Marble, M.D., Boston; C. A. Moyer, M.D., Dallas; W. E. Nelson, M.D., Philadelphia; E. M. Papper, M.D., New York City; W. J. Potts, M.D., Chicago; Stephen Rothman, M.D., Chicago; E. L. Sevringhaus, M.D., Nutley, N. J.; R. H. Smithwick, M.D., Boston; F. H. Top, M.D., Minneapolis, Minn., and H. L. Williams, M.D., Rochester, Minn.

CONFIDENTIAL COMMUNICATIONS

The State Social Welfare Commission is cooperating with the Michigan State Medical Society in adding to its forms, to be signed by clients, a phrase so that the attending doctor of medicine is legally immune from prosecution for divulging a confidential communication when such information is requested by the Social Welfare Department. The forms or questionnaires of the Welfare Department will indicate a release, similar to that used by insurance companies in identical cases.

Although the so-called privileged communication is merely a rule of evidence, the Michigan Medical Practice Act of 1899 includes a clause that the willful betrayal of a professional secret is unprofessional conduct. Only one case of record in the United States exists where the Supreme Court has held such an act is willful betrayal; moreover, the Supreme Court has held that not every disclosure is willful betrayal. Some attorneys have the opinion that the furnishing of information in public assistance cases is not the willful betrayal of a professional secret and has no criminal aspect. However, the Michigan State Medical Society recommended that the Social Welfare Department forms, to be signed by their clients, should be devised so that the doctor of medicine is legally immune from prosecution for divulging a secret. The Welfare Commission expressed a willingness and eagerness to co-operate.

Future Welfare forms will follow the insurance company lead and contain a clause which will protect the doctor of medicine in divulging confidential information, when requested by the Social Welfare Agencies.

AID AMERICAN MEDICAL EDUCATION FOUNDATION

The MSMS Council urges support of this very constructive program, the most important ever undertaken by the medical profession. Each county or district medical society of Michigan has been urged to appoint an individual or committee to assume responsibility for stimulating interest in the Foundation and seeing that the largest possible number of physicians contribute promptly and generously.

Doctor, it is important that you get behind your American Medical Education Foundation.

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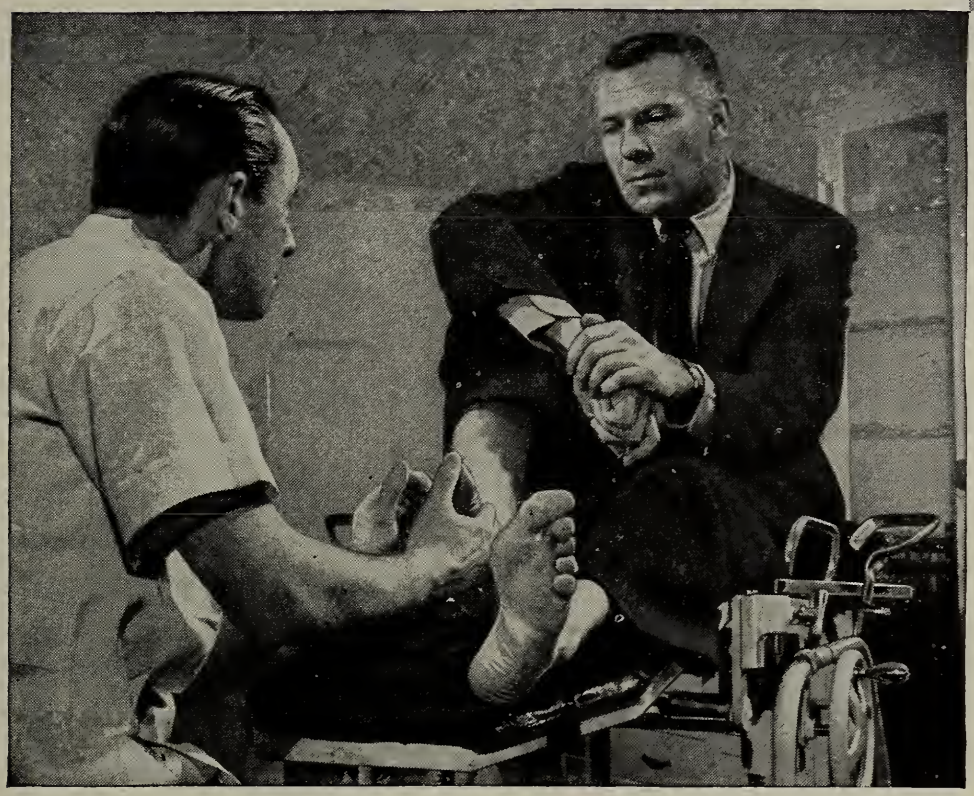
The following technique to select the doctor of medicine to receive this annual award has been approved by the MSMS Council: (1) notification to all county medical societies, with stipulation of June 30 as a deadline for nominations; (2) consideration by The Council of all nominations, with the selection of three names to be submitted to the House of Delegates; (3) selection of Michigan's Foremost Family Physician by vote at the first meeting of the Annual Session of the House of Delegates in September, to facilitate appearance of the selected physician before the House of Delegates.

(Continued on Page 564)

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1. Nettleship, A.: Arch. Dermat. & Syph. 61:669, 1950
2. Brewer, W. C.: Arch Dermat. & Syph. 61:681, 1950

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An Open Letter to MSMS Members

Perhaps you, too, have wondered as I have what these men do whom we elect to the highest positions of responsibility in the MSMS. The other night I had an opportunity to observe and I would like to report to my fellow members of the MSMS what I found.

As you may remember, the councillors whom we elect by way of the House of Delegates meet as a full council twice each year for a two- to three-day session each time. The members of the Executive Committee of the Council meet monthly to carry on the business of the Society, and upon this group of men rests the heaviest burden in the management of our organization and its many projects.

The other evening I had the rare opportunity to sit in as a guest for the last few hours of one of these meetings of the Executive Committee. These men had convened at eleven that morning, and the meeting did not adjourn until a full hour after midnight. I am told that these monthly sessions always last for at least twelve hours. After the meeting, many of the men had from 80 to 120 miles to drive home, with the responsibilities of their professional practices waiting for them early the next morning.

We are all familiar with some meetings which are unduly long because they drag, but this one was handled in a most efficient and business-like manner. There were no long debates; the most important motions were introduced after many hours of careful investigating had been done before the meeting by some one or more of the members. Even at the end of this thirteen-hour committee day I saw no evidence of undue fatigue or resultant hasty action.

As I left that night, I thought to myself: "The MSMS is fortunate indeed to have at its head men of the high caliber and deep devotion of these whom I saw in action tonight. They serve for more than just a 'desire for recognition.' It is no wonder that under this competent leadership we have one of the best state medical societies in the country."

I have a firm conviction that the best way we can show these men our appreciation of their work is enthusiastically to accept the responsiblities offered us in our county and state societies, and to look for new work which needs doing and can only be done if we too spend of our own time and effort. Our membership responsibility goes deeper than the paying of dues.

Signed:

John R. Rodger, M.D.
Bellaire, Michigan

May 10, 1951

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of April 25, 1951

One hundred and five (105) items were considered by the Executive Committee of The Council at its April 25 meeting. Chief in importance were:

- Monthly financial reports were presented and approved. Bills payable were inspected and authorized to be paid.
- Resolution was ordered drafted re AMA rule on payment of the voluntary dues of 1950 prior to acceptance of 1951 AMA dues from members; this resolution is to be presented by Michigan's Delegates to the AMA House of Delegates in Atlantic City, June, 1951.
- Resolution on "Short Lived Income of Doctors" was approved and referred to Michigan's Delegation to present to AMA House of Delegates in June, 1951.
- Purchase of property at 606 Townsend, Lansing. The Legal Counsel reported on the option and matters of encroachment and of possible possession of property by June 15.
- Reports of the President, President-Elect, and Secretary, were presented.
- Question of a member of the Michigan State Board of Registration in Medicine re reciprocity

(Continued on Page 566)

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HIGHLIGHTS OF EXECUTIVE COMMITTEE

(Continued from Page 564)

(including displaced persons) was discussed. The Executive Committee of The Council favors enforcement of the Michigan Medical Practice Act within the most liberal interpretation in keeping with the policy of good medical care; the intent of the law should not be changed. The medical profession is trying to live up to this Act which aims to maintain a high standard of practice, so it should not be changed to permit persons of questionable training and reputation to dilute the high quality of medical service in Michigan.

- President C. E. Umphrey, M.D., commented on the article in the May *Woman's Home Companion,* written by Alfred Deutsch, formerly with the defunct PM, which suggested that the American Hospital Association and the AMA were at odds on the subject of hospital standardization; this was refuted in a subsequent telegram signed by the secretaries of these two Associations.
- Mutual problems were discussed with State Health Commissioner A. E. Heustis, M.D., Lansing.
- Congratulations were extended to J. S. DeTar, M.D., Milan, on his recent election as Speaker of the American Academy of General Practice at its San Francisco Assembly, March 20.
- A statement was ordered inserted in the Secretary's Letter that complaints had been received re some practitioners allegedly charging exorbitant prices for penicillin; while MSMS realizes that such a practice, if followed, represents activity by only a small fraction of the profession, nevertheless the opprobrium for such overcharges is heaped upon the entire profession by the public which knows the *actual* cost of the drug.
- A resolution to the AMA House of Delegates requesting that MSMS Special Members (Emeritus, Life, Retired, et cetera) be accorded Associate Membership in the AMA, was authorized.
- American Medical Education Foundation: a news note in the Secretary's Letter, urging individual doctors to aid the AMEF, was ordered.
- Local public relations meetings to publicize Blue Cross-Blue Shield and to acquaint representatives of labor, industry, et al, concerning the aims, purposes and problems of Michigan Hospital Service-Michigan Medical Service, were recommended. The medical profession in all parts of the state is urged to give full cooperation to Blue Cross-Blue Shield in conducting such informative meetings with lay groups because in this way the medical phases of Michigan's voluntary group medical care program will become more fully known to personnel directors, labor relations directors, heads of insurance departments, and others representing sizable groups.
- A scroll was authorized to be presented to the Woman's Auxiliary on the occasion of its 25th Anniversary, in September, 1951. Robert S. Breakey, M.D., Lansing, was chosen as official representative of the Michigan State Medical Society to attend the Woman's Auxiliary luncheon at its Silver Anniversary Convention in Grand Rapids.
- Michigan Postgraduate Clinical Institute. Dates for this Detroit meeting for the years 1952 to 1957, inclusive, were set.
- Nominations for the Basic Science Board, to be presented to the Governor, were made.
- Michigan Heart Association check for $5,811.57, payment for last quarter of the Michigan Rheumatic Fever Control Program year (1950-51), was accepted with a vote of sincere thanks.
- Confidential communications. A member's question on this subject was answered by the Legal Counsel. The Executive Committee of The Council recommended that a form, to be signed by the patient, be devised so that doctors of medicine are immune from prosecution for divulging alleged secrets, when requested by the Welfare Department through its questionnaires and forms, similar to release now supplied by insurance companies.
- Medical Practice Act. Three proposed changes, as recommended by F. L. Troost, M.D., Holt, Chairman of the Committee on Study of Medical Practice Act, were approved.
- Progress report of Rheumatic Fever Co-ordinator Leon DeVel, M.D., Legal Counsel J. Joseph Herbert, and Public Relations Counsel H. W. Brenneman were presented and approved.
- Press Relations Conference in Marquette Fri-

(Continued on Page 568)



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Neo-Antergan is characterized by high antihistaminic potency—and a high index of safety. It affords prompt, safe, symptomatic relief to the allergic patient during distressing periods of high pollen levels.

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RAHWAY, NEW JERSEY

Say you saw it in the Journal of the Michigan State Medical Society

HIGHLIGHTS OF EXECUTIVE COMMITTEE

(Continued from Page 566)

day, June 22, on occasion of Upper Peninsula Medical Society meeting, was authorized.

- The drafting of a resolution re hospital standardization program for presentation by Michigan's Delegates to AMA was authorized.
- Committee reports. The following Committee reports were given consideration: (a) Committee on Increase in Number of Medical Graduates, February 27; (b) Iodized Salt Committee, meeting of March 2; (c) Ethics Committee, meeting of March 16; (d) Medical Procurement Advisory Committee, meeting of March 16; (e) Permanent Conference Committee, meeting of March 21; (f) Infectious Diarrhea Committee, meeting of March 21; (g) Mental Hygiene Committee, meeting of March 22; (h) Emergency Medical Service Committee, meeting of March 28; (i) Industrial Health Committee, meeting of April 4; (j) Child Welfare Committee, meeting of April 11; (k) Quarterly financial report of Cancer Control Committee; (l) Liaison Committee with UAW-CIO, meeting of April 19.
- Resignation and letter of thanks from Russell F. Staudacher, Assistant Public Relations Counsel, was received, and a communication of appreciation for Mr. Staudacher's services was authorized to be sent to him in care of the AMA Council on Medical Service, where he is now employed.
- The Ingham County Medical Society's Woman's Auxiliary was complimented by the Executive Committee of The Council for its sponsorship of a recent successful tea in honor of the wives of Michigan's Legislators.
- The Public Relations Department was given a vote of commendation for its preparation of an excellent brochure in connection with the Invitational Membership Campaign.
- A scroll was authorized to be presented to Sue Biethan, retiring Librarian of the University of Michigan Medical School. C. E. Umphrey, M.D., President, MSMS, presented the scroll at the May 10 meeting of the Washtenaw County Medical Society.
- Resolution re the late Senator Arthur H. Vandenberg was authorized to be drafted and sent to his family.

MICHIGAN NURSING CENTER ASSOCIATION

Young women who think of serving their country and their own future as nurses can now get up-to-date information from a new directory, "Schools of Nursing in Michigan," published by the Michigan Nursing Center Association.

Next September 2,000 qualified applicants must enter schools of professional nursing in this state if local and national needs are to be met, according to estimates by the association's Committee on Careers in Nursing. This is a 50 per cent increase over 1950 admissions.

Among the signs of a rising employment market for graduate nurses the committee points out:

Expansion of the armed forces, requiring more nurses in the Medical Corps.

Demands of civil defense program for persons with nursing skills.

More patients treated in hospitals each year; more hospitals being built.

More aged people among the total population.

Growth of public health movement to prevent illness and keep well.

A modern nursing school is no longer confined to the four walls of a hospital, the new pamphlet reveals. While a student still gets her major clinical experience in the hospital with which her school is connected, she may attend a nearby university or junior college for basic science classes. When she is ready for specialized experience she may get it in such institutions as the Children's Hospital of Michigan or the Herman Kiefer Hospital, Detroit; one of the state mental hospitals, for psychiatric nursing; or with the local Visiting Nurse Association.

Besides the three-year hospital courses and the four-year or five-year college courses for high school graduates, approved by the Michigan Board of Registration of Nurses and Trained Attendants, the pamphlet also describes the one-year courses for practical nurses. These courses are supervised by the Office of Vocational Education, Michigan Department of Public Instruction.

Fully 1,000 practical nurses for less highly skilled service can be trained this year in eight centers throughout the state, says the committee. Classes are admitted three times a year. Students may enter with only two years of high school, provided they are at least eighteen and meet general requirements.

Counselors and high school students may secure a copy of "Schools of Nursing in Michigan" on request to the Michigan Nursing Center Association, 470 Hollister Building, Lansing 8, Michigan.

AND ALL THIS UNDER PRIVATE PRACTICE!

The Nation's death rate from tuberculosis dropped about 9 per cent in 1949, to 26.2 per 100,000 population, Dr. W. Palmer Dearing, Acting Surgeon General of the Public Health Service, Federal Security Agency, reported. During the first eleven months of 1950, a further decline of 15 per cent occurred, and the rate for

(Continued on Page 570)



this new Upjohn plant has
been in full production.
It is the culmination of
five years of planning and
four years of building.
These greatly expanded
Upjohn facilities keep pace
with rapid advances in
medical research.

Upjohn ***Medicine...Produced with care...Designed for health***

THE UPJOHN COMPANY, KALAMAZOO, MICHIGAN

AND ALL THIS UNDER PRIVATE PRACTICE

(Continued from Page 568)

this period was 22.6 per 100,000 population, he said, explaining that these figures are provisional, as data for 1949 and 1950 were based on a 10 per cent sample of death certificates obtained from each State and the District of Columbia. Dr. Dearing also pointed out that because the death rate for 1950 was based on figures for eleven months only, no aggregate decrease in the tuberculosis death rate since 1948 can be computed at this time.

The death rate in the United States for all forms of tuberculosis has shown a downward trend for almost half a century, except for a slight rise in 1917 and 1918, during the influenza epidemic of World War I.

Since 1900, the death rate for respiratory tuberculosis has decreased 86 per cent, from 174.5 per 100,000 population to 24.5, while death rates from other forms of the disease have declined 91 per cent, from 19.9 to 1.7 per 100,000 population.

For the year 1949, significant decreases were recorded for men between the ages of twenty-five and sixty-four and women between fifteen and sixty-four. Data for respiratory tuberculosis, which constitutes over 90 per cent of all deaths from the disease, show that the rate for males (32.5) is almost twice as high as the rate for females (16.6). Mortality rates from tuberculosis continue to be more than three times as high for the nonwhite groups as for the white.

Provisional figures for 1950 show decreases for the age groups between fifteen and seventy-four years. The decreases range from nearly 9 per cent for the sixty-five to seventy-four year group to 23 per cent of the twenty-five to forty-four year group. Each of the four geographic regions of the United States showed a death rate decrease for all forms of tuberculosis in 1950.

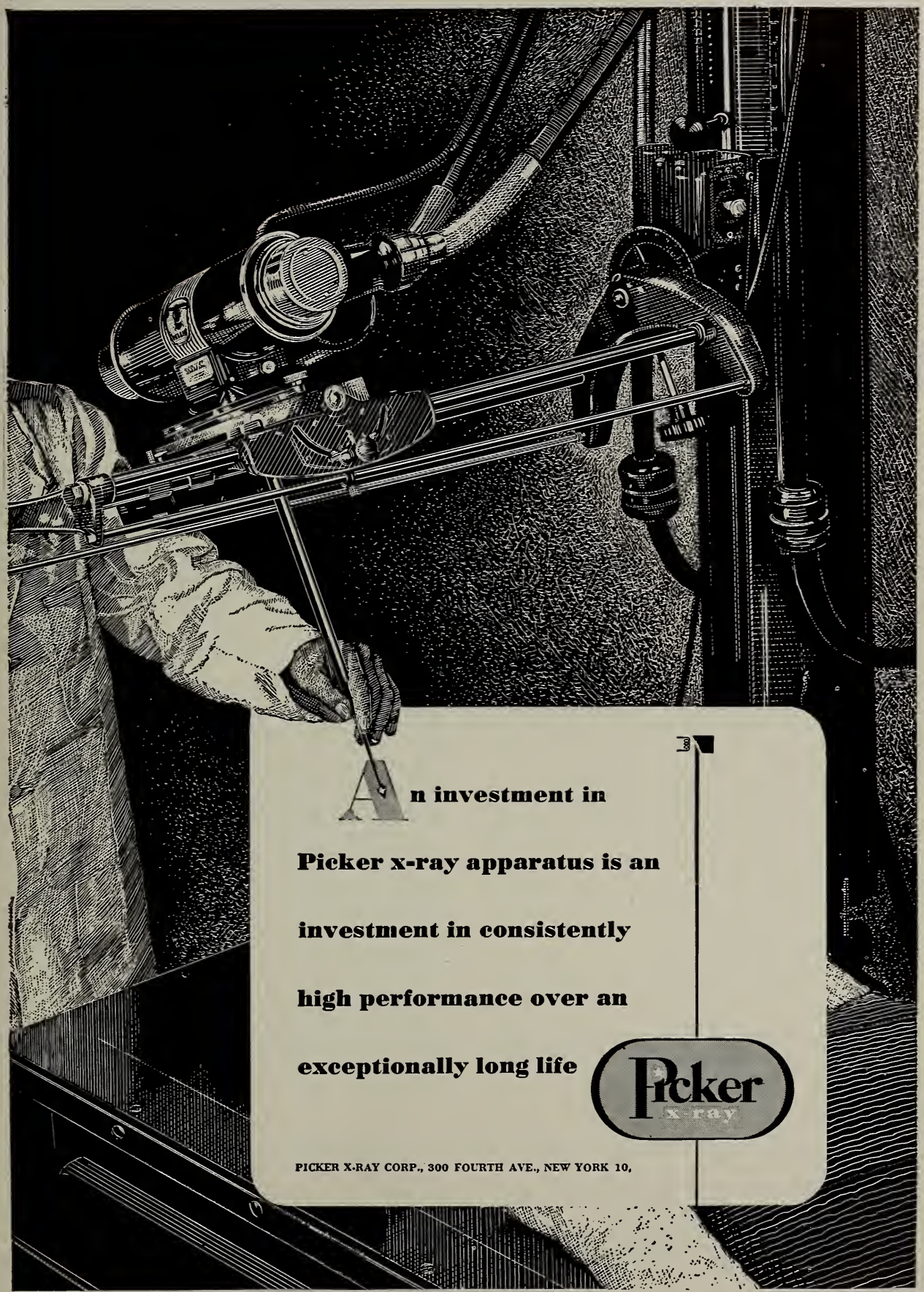
INTENSIVE COURSE AT MICHAEL REESE HOSPITAL

The Michael Reese Hospital Postgraduate School is offering a two-week course in "Diseases of the Endocrines—Physiology and Diagnostic Methods." This full-time intensive course will meet from July 9 to July 21, 1951, and consists of a balanced program of basic information and clinical applications. Dr. Rachmiel Levine, Director, Department of Metabolic and Endocrine Research, is co-ordinator of the course.

A full-time intensive course in "Hematologic Diagnosis," under the direction of Dr. Karl Singer, will be presented by the Michael Reese Hospital Postgraduate School from July 23 to August 4, 1951. This two-week course offers a review of the present status of hematology and instruction in actual reading of slides of normal and pathological specimens of peripheral blood and bone marrow.

For further information, address Dr. Samuel Soskin, Dean, 29th St. & Ellis Ave., Chicago 16, Illinois.




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United States Senator Arthur H. Vandenberg of Michigan



WHEREAS, the members of the Michigan State Medical Society are sincerely grieved over the unhappy passing of United States Senator Arthur H. Vandenberg of Michigan, a statesman of international stature; and

WHEREAS, Senator Arthur H. Vandenberg, as United States Delegate to the San Francisco United Nations Organization Conferences in 1945, as United States Delegate to the First and Second General Assemblies of the United Nations in 1946, as United States Representative at the Council of Foreign Ministers and at the Paris Peace Conference in 1946, as advisor to Secretary of State James Byrnes at the Big Four Foreign Ministers' Meeting in Paris in 1946, as the American Delegate to the Rio Pact Conference at Rio de Janeiro, Brazil, in 1947, contributed of his vast knowledge and understanding of the problems of the world to the fostering of enlightened principles which will be the foundations of any world peace to be achieved; and

WHEREAS, amidst the gravest perils that mankind has ever known Senator Arthur H. Vandenberg stood as a fortress of strength and courage, and with clean vision saw and thus aided this country to avoid the pitfalls that caused other nations in other generations to stumble and lose their gains and victories; and

WHEREAS, Senator Arthur H. Vandenberg, as a newspaper editor and publisher, as one of the truly great citizens of the state of Michigan, and as a man of noble spirit, has left his friends with the challenge of new horizons for Peace in this world; THEREFORE BE IT

RESOLVED: that the Michigan State Medical Society, representing the medical profession of this State, expresses the true sorrow of its 5,110 members at the great loss sustained in the passing of Senator Arthur H. Vandenberg and extends sympathy and condolence to his family; and be it further

RESOLVED: that this resolution be spread upon the pages of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY together with a photograph of Senator Arthur H. Vandenberg, and that his family be supplied with copies of the number in which this testimonial is published.

Signed this 17th day of May, 1951.

C. E. UMPHREY, M.D.
President

R. J. HUBBELL, M.D.
Chairman of the Council

Attest: L. FERNALD FOSTER, M.D.
Secretary

UNCANNILY PROPHETIC

A friend of ours once went to considerable pains to prove that there is "nothing new under the sun." The other day we ran across this uncannily prophetic quotation that seems to bear him out.

It was written in the year 1834 by the French author, Alexis de Tocqueville. We quote it below without further comment:

"Today there are two great peoples who, starting from different points, seem to approach the same destiny; they are the Russians and the Americans. Both of them have grown in obscurity, and, while men were looking the other way, they have suddenly reached the first rank of nations. . . .

"All other peoples seem to have nearly reached the limits of their potentialities. . . . But these two peoples are growing. These alone follow a course whose limit the eye cannot yet detect.

"The American battles the obstacles of nature; the Russian, those of man. The former combats the wilderness and savagery; the latter, civilization with all of its weapons. American conquests are won with the laborer's ploughshare; Russian triumphs with the soldier's sword. To attain its ends, the American relies upon personal interest and allows free scope to the unguided energy and common sense of individuals. The Russian somehow concentrates the power of society in one man. The method of the former is freedom; the latter, servitude.

"Their starting point is different, their ways are diverse, and yet each of them seems called upon by the secret design of Providence to control, some day, the destinies of half the world."—Portland (Ind.) *Graphic and Pennville Booster*

It is held by some surgeons that most ulcerative lesions of the stomach more than 4 centimeters in diameter are malignant.

* * *

Sunlight is the most potent of all carcinogens.

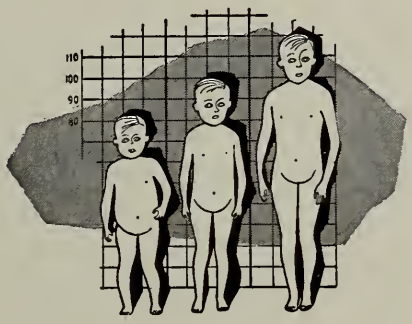
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Locomotive engineers develop skin cancer nine times as frequently as the general population.

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Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases.



The Pediatrician has found that aureomycin is promptly and fully effective in his young patients. Infections in any part of the respiratory tract, due to susceptible organisms, are as a rule readily controllable by its means, as are most meningeal infections caused by staphylococci, streptococci, pneumococci, *H. influenzae* and *E. coli*. In the infectious diarrhea of infancy, aureomycin, in conjunction with fluid and electrolyte replacement, has given excellent results. Aureomycin is a drug indispensable to pediatric practice.

Packages

Capsules: Bottles of 25 and 100, 50 mg. each capsule. Bottles of 16 and 100, 250 mg. each capsule.
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Cancer Comment

CANCER REGISTERS ARE WORTHWHILE

With an increase in interest in ways and means for the control of cancer, the question of a register for such cases is discussed more and more. As with every other new tool for better service to patients that requires a contribution of a third party to make its use successful, there are some who object to this added service that can be of material help to both the cancer patient and the medical profession.

It has been said that to prevent or control any disease effectively a knowledge of the number, location, and characteristics of cases of the disease is essential. There may be different ways to obtain this knowledge. Whatever method is employed a knowledge of extent of the problem, the incidence, represented by the number of patients involved, is of primary importance. Throughout the history of medicine, improvements in diagnosis, treatment and care of patients have been brought about by a critical study of records of patients. The profession is proud of its record in the control of communicable disease which has been brought about only by reporting of large numbers of such cases and carefully studying in large numbers the results of different treatment and control methods.

Properly organized and operated, a cancer case register can be of distinct service to the medical profession and the community. It can (1) ascertain with reasonable accuracy the extent of the cancer problem, i.e., the number of living cases in the community; (2) insure more effective follow-up on patients who have been under treatment; (3) provide a reservoir of information on various types of cancer suitable for clinical and statistical research.

In Connecticut, where cancer reporting has been in operation since 1935, almost 50,000 individual case histories are now available for research study. Year after year an increasing number of physicians and hospitals in that state have co-operated in the reporting program until now 92 per cent of general hospital beds of the state are represented by the hospitals reporting.

A register provides the only accurate measure of cancer incidence in any community. Prevalence can be obtained by special surveys and will vary from year to year. Epidemiological studies, of which there is a great lack at this time, can be facilitated by a register as can the study of economic and other social and family problems.

Identification of the patient is essential to prevent duplication of records. As soon as the data are transferred to IBM punch cards, the original records are returned to safekeeping.

To be effective, a register must be supported by all community groups concerned and reporting should be complete. It can degenerate into a "morgue" if its records are not used or are only spasmodically analyzed. Its effectiveness can be increased by routinely checking death certificates of the community concerned, thus keeping only living cases in the active file. Incomplete reporting or coverage of facilities defeats one of the major objectives of the program, that of obtaining information concerning all living cases in the earliest possible stage of development of the disease. It will also invalidate any morbidity statistics that may be derived from analysis of the incomplete data.

In general, the local health department is a logical center for housing the registry although a hospital may serve the purpose, especially if there is but one hospital in the area served. There should be close co-operation between the local register and state health department for purposes of checking death records and other services the health department can render, such as supplying record forms and statistical and other consultation services.

The argument most frequently advanced against reporting cancer cases is that it violates confidential information between physician and patient because the record becomes public property available to anyone. This, of course, is not true as health department records of this nature are safeguarded by law from the public unless they are requisitioned for legal purposes. The same holds true for the physician's case histories. Furthermore, if the physician keeps a written record of his patient's condition, there is no such thing as completely confidential information between patients and physician. For

(Continued on Page 578)

BELIEVE IN YOURSELF!

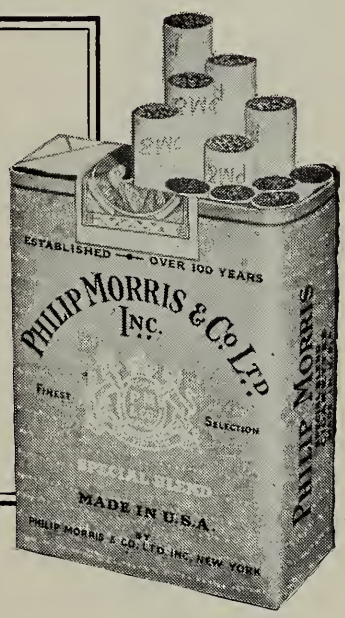
Doctor, you probably have read a great deal of cigarette advertising with all sorts of claims.

So we suggest: make this simple test...

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1. Light up either one. Take a puff—don't inhale—and s-l-o-w-l-y let the smoke come through your nose.

2. Now do exactly the same thing with the other cigarette.



Then, Doctor, ***BELIEVE IN YOURSELF!***

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Editorial Comment

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

GRAND RAPIDS—September 26-27-28, 1951

OBLIGATIONS OF SOCIETY MEMBERSHIP

"And if thine eye offend thee, pluck it out."

Your dues—have you paid them?—Yes, of course; but membership entails further and more important obligations. Dues; Attendance; Committee work; Education of the Profession; Standards of Practice, both technical and ethical; are among the main such obligations, for membership is a privilege which must be paid for with many things more than money. And then there is the duty to maintain the respect and esteem of the Public, to which end our Professional standards are set and kept high.

The great majority of doctors attempt to live up to these standards both from personal pride in their work, and from a group pride in their profession. But any large organization has a few who are "on the fringe," and occasionally well beyond it. These parasites capitalize on the high professional reputation of the group, doing nothing to advance it, and by various shoddy practices are a constant threat to its very maintenance. Such practices are many—inferior service; sidestepping of responsibility; callous pirating of patients; disparaging remarks on the honest efforts of other physicians; and finally inordinate charges. Any and all of these result in loss of respect by the Public for the Profession.

The vicious actions of one such individual do irreparable harm, and unfortunately offset the conscientious efforts of the many. With the Profession of Medicine under fire from many sides, political and otherwise, renewed efforts by all to protect and raise the standards of practice should continue to be the order of the day.

But in addition to this it is high time that we should slough off those who, by their perseverance in practices inimical to the best standards of the group as a whole, are endangering the high and justly earned reputation of the Profession.—Ed. Spalding, Editorial, *Detroit Medical News,* May 7, 1951.

WITHOUT BENEFIT

National Hospital Day will be observed this year without official White House blessing.

According to the first page of a letter to the president of the American Hospital Association from a secretary to the President of the United States, it has grown too difficult to deal with requests for proclamations from so many health organizations.

There is the constant hazard, it is explained, of unintentional discrimination; of favoring one health organization while failing to favor another health organization. Consequently, the President this year will extend recognition to health organizations "only when authorized by the Congress to issue an appropriate proclamation."

The President "does not minimize the invaluable contribution to the health of the nation made through the work carried on by our wonderful hospitals," but, with a policy established, it would be hard to make an exception in this case.

On the second page of this letter, however, the President's secretary explains further: "As an earnest of the President's deep interest in the public health, I would call your attention to the health program which he recommended to the Congress. That program, as you know, has met not only with opposition, but has been misrepresented shamelessly to the public by opponents within the medical profession. There is no need to dwell on this particular subject. I would also call your attention to the fine contribution to the health and general well being made by the Health Resources Advisory Committee of the National Security Resources Board under the chairmanship of Dr. Howard A. Rusk."

So it may be said that, literally for one reason and another, National Hospital Day in 1951 will be observed without official White House blessing. —Editorial, *Hospitals,* The Journal of the American Hospital Association, page 63, May, 1951.

A Preferred Nasal Decongestant and Vasoconstrictor

Otorhinolaryngologists frequently express preference for Neo-Synephrine hydrochloride to alleviate turgescence and nasal congestion in colds, sinusitis and various forms of rhinitis.

"When considerable nasal obstruction exists, relief may be obtained by the instillation of some shrinking agent into the nose... as for example Neo-Synephrine hydrochloride (¼%)"[1]

A "desirable preparation of this type has been perfected in Neo-Synephrine hydrochloride. It may be used for local application in the nose in ¼ to 1% solution."[2]

Neo-Synephrine's "desired effect occurs within from two to fifteen minutes..."[3]

"Its action is sustained for two hours or more."[3]

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1. Tuft, L.: Clinical Allergy. Philadelphia, W. B. Saunders Co., 1947, pp. 335-336.
2. Hansel, F. K.: Allergy of the Nose and Poronosal Sinuses. St. Louis, C. V. Mosby Co., 1936, p. 769.
3. Kelley, S. F.: Choice of Sympathomimetic Amines. Cornell Conferences on Therapy, II, 1947, p. 156.

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Political Medicine

Washington, D. C.
April 3, 1951

Editor, *Journal of the American Medical Association*
535 North Dearborn Street,
Chicago, Illinois

My attention has been called to the President's Page in March 31 issue *Journal American Medical Association.* It quotes sentence from what you mistakenly call a "current" pamphlet, describing it as "Mr. Ewing's directive." Any reputable scientific periodical verifies statements before publication. Elementary check would have revealed that pamphlet was written and issued in 1945, some two years before I became Federal Security Administrator. Checking would also have revealed that this pamphlet is not being currently distributed by Federal Security Agency, and has never had remotest authority as directive. Since you profess to be a scientific magazine interested in truth, I suggest you retract the statement as publicly as it was made in the first place.

Oscar R. Ewing,
Federal Security Administrator
Federal Security Agency

Chicago, Illinois
April 11, 1951

The Honorable Oscar R. Ewing
Federal Security Administrator
Federal Security Agency
Washington, D. C.

We have your telegram of April 3, protesting a reference in the *Journal of the American Medical Association,* to a pamphlet issued by your office titled: "Common Human Needs, an Interpretation for the Staff in Public Assistance Agencies," from which I quoted the following passage: "Social Security and public assistance programs are a basic essential for attainment of the socialized state envisaged in a democratic ideology, a way of life which so far has been realized only in slight measure."

We note your denial of responsibility for the pamphlet on the grounds that it was published in 1945 before your tenure as administrator of that office. This denial, as you request, will be duly reported in the *Journal.* You are correct in assuming that as a reputable scientific periodical it is the habit of this *Journal* to verify statements before publication. The facts concerning my reference are these.

The pamphlet in question was reprinted for distribution by your office in 1949, when the public record indicates you were in charge of the Federal Security Agency, its publications and its directives to employes. Five copies were received in the mail here last week, which indicates certain currency still. These all carry the imprint, "Government Printing Office, 1949." The fact that the report was first printed in 1945 would not seem to alter the further fact that you apparently have thought well enough of it to have it reprinted in 1949.

We would suggest that if you wish at this time to disavow the principles expressed in the pamphlet, you will wish to do so in a formal statement to Congress, for as recently as February 26 this year, it was protested on the floor of Congress as a grave misuse of taxpayers' money to disseminate wholly unAmerican philosophies.

In case it was without your knowledge that your office was reprinting and distributing such unAmerican directives during your tenure, you may wish to issue a public statement disclaiming responsibility for the material. If so, we shall certainly be glad to be helpful in giving such a statement further distribution through the *Journal,* for the medical profession will be sincerely interested in any such action.

Elmer L. Henderson, M.D., *President*
American Medical Association
Chicago, Illinois

CANCER COMMENT

(Continued from Page 574)

example, the physician's office personnel of assistant, nurse or receptionist and, if a hospitalized case, internes, residents, attending nurses, supervising nurse, record librarian, record clerks or insurance companies demanding information regarding care furnished for accidents or illness—all have access to records and constitute possible sources of "leaks." The fact that seldom if ever does such information reach outside ears attests to the integrity of these types of personnel.

Furthermore, when cancer is made a reportable disease, as it has been in Michigan and twenty-seven other states, the responsibility of reported cases rests with the state health department and the physician is absolved from violating confidential medical information. Therefore, danger in this regard is largely a figment of the imagination of the physician who overemphasizes such danger as an excuse for his unwillingness to cooperate in disease reporting programs.

Carcinoma of the ovary is frequently bilateral and it is a wise precaution on the part of the surgeon to remove both ovaries and the uterus at the first operation.

* * *

Earliest symptoms of carcinoma of the uterine corpus are usually the onset of postmenopausal bleeding or an unusual or active leukorrhea.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

VOLUME 50 JUNE, 1951 NUMBER 6

The Elderly Patient

By Edward L. Bortz, M.D.
Philadelphia, Pennsylvania

THE PERSONAL and social problems of elderly folks have taken on great importance due to the substantial increase in numbers of our older population group. Distinguished citizens of Michigan with visions of significant changes in our American panorama have emphasized the importance of the extending human life span. Warthin has contributed one of the best studies under the title of *Old Age, the Major Involution.* The University has sponsored for the last three years an institute for the study of problems of the older years.

The medical problems of folks in the later years of life are rapidly taking on increased importance. The control of the common infections, nutritional disorders, glandular discrepancies, and a number of other diseases has protected infants, youths, and adults, now permitting them, if not destroyed by accidents, to attain in greater numbers the later years of the human life span.

A half century ago in 1900 one out of every two citizens was under twenty years of age. There was a high birth rate and a great number of immigrants. At the present time immigration has come to a standstill and there has been a decline in the birth rate. In 1900 some 3,000,000 individuals, or one out of every twenty-five, were sixty-five years of age or more. Today the figure is approaching 12,000,000, or one in every thirteen. While the population has doubled in one and a half centuries, the citizens of sixty-five years or more have almost quadrupled.

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, Detroit, September 22, 1950.

This transformation of our people has brought into sharp relief the medical problems of the later years. It is appropriate that these be clearly tabulated, their characteristics inspected, and means for more efficient control brought about.

The character of our national life has changed likewise. At the turn of the century we were a rural, an agricultural people. Today we are industrialized. More people live in cities, the character of family life and mode of living has greatly changed. In this atomic age medicine indeed is facing new problems, or shall we say, old problems with greater emphasis on those deteriorations and afflictions of the later years. There is pressing need for doctors to realize the peculiarities of disease in old bodies and minds. Heretofore this area, so rich in promise for medical science, has been largely neglected. Pediatrics as a specialty rendered important services since its recognition as a specialized field during the latter part of the nineteenth century. The youth movement paid rich dividends in the control of disease and the enrichment of living the early years of life. Is it not high time that the problems of the harvest years, the years of arrival, now be examined by the new techniques of the scientific method?

Since geriatrics has to do with the diseases and disturbances of men and women in the later years of life, the question naturally comes to mind, "When does old age begin?" This is a fascinating and perplexing query. One finds vivid, alert, interesting, young, active folks in the eighties, and on the other hand, there are individuals even in the twenties and thirties who have all the characteristics of old age. Perhaps there is a difference in the measurement of age of the human body. Watch time or chronological time calculated by the movements of the sun, planets, and stars is a convenient yardstick with which to estimate the years of human life. However, it is more important

to know the condition of the tissues of the body; the efficiency and health of the heart muscle, the balance of the body function, action of the nervous system, play of the emotions, the bloom and freshness of the personality—these forces which govern every man, woman, and child are the real determining influences which extend or shorten life and, of more importance, give it substance, satisfaction, and social significance.

Why do human tissues deteriorate prematurely? Evidence is available that premature degeneration of the vascular channels of the body, resulting in apoplectic stroke, coronary occlusion, hypertension with hardening of the arteries, is caused by some disturbance in the intermediary fat metabolism of the body. For example, population groups in certain areas in China, India, and Africa, who subsist on low fat diets, have little or no hardening of the arteries. Also, it can be proven experimentally by feeding animals low fat diets, for controlled experiments demonstrate an absence of vascular deterioration due to fatty substances. This field represents one of the most important challenges for research. Statistics indicate that about one million lives are taken each year as the result of vascular damage. Many of these lives would be saved if more light were shed on the intermediary metabolism of food stuffs, notably the fats.

Disorders of the Later Years

The elderly individual is more susceptible to infectious diseases, such as the ordinary cold, pneumonia, and the everyday afflictions that may occur to individuals during the mature years. Surgical emergencies may arise in elderly individuals. It has been found with careful preoperative preparation, the selection of an appropriate anesthetic, and gentleness on the part of the surgeon, that the mortality rate for surgical operations is only slightly greater for older people than occurs for the younger age groups. Of course, the increase in the number of elderly individuals has brought about a marked increase in the number of cases of cancer since tumor growths occur with greater frequency in persons over sixty years of age. Improved methods leading to earlier diagnosis and more adequate eradication of the cancerous growths has accomplished complete cure in a great many cases.

The tempo of physiological processes slows with advancing years. Nature seems to conserve strength and resources. Healing of illness and recovery following infections occur more gradually. The actions of drugs ofttimes is exactly the opposite from the response that is generally needed in young patients. Carrel endeavored to establish a measure of the age of tissues by the time interval required for healing. There is a ruggedness of older tissues and an ability to stand the insults of deleterious influences which appear to be the result of accumulated adaptability. On the other hand, particularly with the sub-clinical forms of malnutrition resulting from long-continued improper diet, body reserves are diminished. There is a lessened tolerance for changes in temperature.

Two factors must be kept in mind in our evaluation of the elderly patient. First, the older state of the body tissue brought about by the accumulated stresses and strains over a period of years which cause a diminution in the comeback of the tissues. Second, the attitude of family, friends, and business associates. The environment in which the elderly patient lives is frequently most depressing and is not conducive to restoration of body function and return to normal activity. The incentives to recovery are too often absent. Where there is no hope for future happiness, there is often no stimulus for the patient to help himself. Accumulated frustrations depress the individual and aggravate an unhealthy situation.

Mental disorders are common in elderly folks. Whereas the serious mental disorders known as schizophrenia, major forms of epilepsy, and other psychoses occur most frequently in the earlier years of life, mental changes due to hardening of the arteries in the brain are common in elderly persons. Not rarely minor aberrations appear which may be due to nutritional deficiency or low grade infectious processes. Modern methods of therapy have improved the mental status of many individuals in the later years.

Treatment in Old Age

By careful attention to the nutrition, elimination, rest, and recreational program of folks in the later years of life, the wear and tear processes may be reduced to a minimum. In each instance an appraisal of physical, emotional, and mental assets is essential. The existence of hidden foci of infection —poor teeth, the bent posture inviting further decrepitude, the unhealthy and unclean skin— must not go unobserved. The sulfa drugs and antibiotics produce the same remarkable response in the elderly body as in earlier years. However, sedatives are tolerated poorly and, indeed, confusion

and excitement may occur rather than quietude. The opiates depress vital functions and may produce renal shutdown. The most satisfactory sedative is probably a small amount of codein. The barbiturates are frequently poorly tolerated.

Much has been written pro and con about the use of tobacco and alcohol. The old "codger" who has enjoyed his pipe for many years should not be denied its comfort unless its use has been proven to be the stimulating factor in cardiac or other pain.

Alcohol, when tolerated, may be a boon for the older patient. As a tonic for the digestion and a sedative for the nervous system, with some energy production in addition, whisky in therapeutic amounts has been generally helpful. However, too often one man's meat is another man's poison. With the best intentions a physician may prescribe spirits frumenti for a patient and later be informed by other members of the family that the patient has been a confirmed alcoholic and that it was only with difficulty that members of the family were able to control his craving for the drug. Experience is the best teacher. Before whisky or other alcoholic beverage is prescribed, the attending physician should ascertain the tolerance of his patient for the prescription.

Psychotherapy is an essential requirement when treating the medical disorders of the later years. The despondencies and fears which beset the elderly patient must be met by the resourcefulness of the physician and nurse. Illness at any age is a calamity. In the elderly patient it may be the beginning of the last long mile. Regardless of the physical outcome it is within the province of the physician to sustain the spirit and hope of his patient; furthermore, the members of the family need be encouraged to maintain a cheerful attitude and interest in the recovery of the patient.

Old Age Pensions

Old age pensions and other forms of social security are a necessary social support to large numbers of the population; nevertheless, a satisfactory state of mind brought about by creative interests, social contacts, and pleasant engagements is essential to add significance to the later years of an individual's life. It has been found that retirement at a stipulated age is a difficult and ofttimes depressing experience for individuals who are in possession of abundant energy, both physical and intellectual. Retirement, based on chronological rather than physiological ageing, is bound to work hardships. This problem is receiving increasing attention on the part of large organizations at the present time.

Recently the Standard Oil Company of New Jersey has set up a formal and scientific program of pre-retirement counseling on a group basis. This is being tried at one of their New Jersey affiliate branches. It is an endeavor to aid older workers to make provision for financial security and health maintenance in the post-retirement years.

Briefly, the employes in the group are interviewed on their fifty-ninth birthday, five years preceding retirement. Following a group interview, counseling is offered concerning physical problems and the various types of activity available upon retirement. The company acknowledges its responsibility to prevent its employes from experiencing a purposeless old age despite financial security. This is an effort to avoid a condition, a state of mind, described by one of the company's retired board chairmen. Six months after his retirement he reported to his former colleagues that they were the most miserable days of his entire life. After counseling by the company, the man was made a partner in an investment banking concern and now has taken on new life.

This is a program based on translating job satisfactions experienced by employes nearing retirement age into post-retirement careers. Among these job satisfactions are feeling of activity, a sense of importance, belonging, usefulness, achievement, and the sensation of being needed, companionship, and the desires for creative work and physical change. Not all job satisfactions can be carried over into retirement, nor is it necessary in order to guarantee an interesting old age. Some workers desire further activity or change of occupation. Only a few find satisfaction in just loafing.

Governor Warren recently called a meeting to study the problems of elderly folks in California. A number of important suggestions were offered and many observations outlined. To begin with there are entirely too many persons in state mental institutions who are there only because there is no place else for them. This contributes heavily to crowding in these institutions and keeps mental patients from receiving proper treatment. Local communities were advised to set up their own infirmaries and institutions to take care of the chronically ill elderly patients. The conference agreed that, as a rule, what elderly people needed were cottage-type units rather than hospitals.

Is Longer Life Possible?

Philosophers and scientists, astrologers and alchemists have studied the problem of extending the years of human life. Essentially the problem of long life is one of organic and tissue stamina. The question, then, appears to be whether conditions of tissue wear and tear are remedial. Tissue repair processes slow down with age. The problem, therefore, for the scientist today is to study the intrinsic nature of those processes. Pearl has demonstrated that longevity may be passed on with a mathematical precision like the transmission of physical characteristics. Other experiments have been conducted with reference to the effect of temperature and diet on the length of life of lower animals. McCay of Cornell has demonstrated that white mice fed on a restrictive diet lived longer than those given all they can eat. Thin folks live longer than those who are overweight.

Science is on the march for new ways and means for extending the life span to its biological limit. This poses a challenge to society to utilize the later years of the population in the direction of social advancement.

The human life can be studied from different viewpoints. A man may be looked upon as a purely physical mechanism, or he may be regarded as a converter of energy. Man may be thought of as an intellectual force, as an emotional dynamo, and finally as a spiritual wanderer.

As a transformer of energy, man begins to age as soon as the male and female cells unite. The growth of an individual proceeds through various stages and according to the rhythms of natural law. Maturation of the individual begins at conception. After some time, wear and tear processes set in. If the living cycle for the human body should follow the same maturation curve of evolution, development, and senescence as that of lower animals, it would seem that premature deterioration is an all too common condition today. As an example, a dog is full grown physically at two and has an average life expectancy of twelve years. At one and a half years of age a cat is full grown and has an expectancy of ten years. At four years a horse is fully grown and has a life expectancy of twenty-five years. According to this, if man is physically mature at twenty-five, then he should have an average normal life expectancy of one hundred and fifty years. If this is an observation of value and represents the potentialities of natural rhythmal existence, then man still has not nearly approached the optimum or the possible life span, since today he averages only seventy years of age.

Calendar Years Are Inaccurate

The ageing of the human body does not follow a uniform progression in all individuals. It is a widely accepted fact that a body may exhibit many of the major characteristics of the later years well before the age of forty has been reached. In fact, there is a common clinical condition, progeria, which is characterized by the very active ageing of the tissue in the youthful years. Ageing of the intellect does not of necessity parellel the ageing process of the body tissue. In fact, the real measure of the vitality and stability of the individual must be an estimate of the integrity and resources of the personality.

Certain basic requirements should be kept in mind for a vigorous, well-balanced, and enjoyable old age. There are ten brief points which might be listed.

First, the diet of older folks should be altered according to their needs. The elderly body conserves energy. As older folks are less active, there should be a corresponding reduction in their total caloric intake. However, clinical observations reveal a protein deficiency in many elderly folks. A diet which averages 150 or 220 depending on occupation, protein optimum of 100 grams and fats from 60 to 80 grams may be taken as a desirable example. This nutritional program, stressing liver, iron and calcium, vitamins, and adequate fluid intake, will improve strength without adding to body weight.

Elimination of waste products through bowels, kidneys, and lungs must not be permitted to become sluggish.

Adequate rest for the body, the nervous system, and the psyche of individuals in the later years is essential to ward off the enervating effects of fatigue.

Too often old folks invite attack by becoming too active; nevertheless, purposeful activity resorted to with reasonable moderation relieves the worried mind and gives it a positive motive. Improper posture and forward bending as age comes on interferes with physiological function.

Old folks need emotional balance and self-discipline just as much as younger individuals need it. Too often vascular accidents result from the consuming fires of anger, rage, and fear.

The preservation of a sense of humor. How im-

portant that is. The somber temperament wears out more rapidly than the merry heart. After all, older folks who have escaped the accidents and storms of the early years have cause for a happy heart.

The cultivation of contacts with younger individuals. Such friendly bonds pay rich dividends. Age has much to learn from youth, and youth should profit from the mature experiences of their elders.

Intellectual growth is a major sign of maturity. A new approach to an old problem is an extension of one's intellectual frontier. "Age has its opportunities no less than youth itself, and as the evening twilight fades away the sky is filled with stars invisible by day."

Continuous education. This thought is in keeping with recommendations of authorities who have investigated possibilities of study on the part of older individuals. In this way they continue to grow and participate in the thoughts of the world's great minds. Furthermore, they are better able to take on new responsibilities and enter new realms of interest.

Never retire. Never retire to a life of complete inactivity. It is far more desirable to wear out than to rust out. By the development of new pursuits when one is asked to withdraw from a faculty, a bank, an industry, or other occupation, one can make a wise investment in his new found leisure.

George Washington retired three times in his life. After each time he became neurotic and introspective. He complained of a number of inconsequential functional disturbances. In other words, the father of our country became neurotic when he retired from active service. Washington was born in February, 1732. After he had retired from command of the Virginia militia in 1758 because of ill health he wrote, at the age of twenty-six, "I have now too much reason to apprehend my approaching decay." However, in June, 1775, at the age of forty-three, he returned to command the Continental Army and, of course, distinguished himself. In 1783, when he was fifty-one, he wrote, "The scene is at length closed. I will move gently down the stream of life until I sleep with my fathers."

As a rule, when an individual retires, too often there is no opportunity or outlet for continued activity which is necessary to a satisfying existence; immediately one begins to live in the past. With the loss of sustaining habits the elderly person becomes depressed and his attention is directed to the organs of the body in search for signs of debility. There is a prompt diminution in vitality, and the joy of living gives way to a wearisome discussion of one's misfortunes. Successful existence at any age requires an all-absorbing motive.

The problem of retirement is a challenge to industry, labor and the professions today because many men are at their most productive capacity just at the period when the age limit is reached. Many have ten, fifteen, or twenty years longer of useful service. To ask them to retire is detrimental certainly to employers and employes alike. Some other method needs to be selected to find out when a man has ceased to be useful in one particular position. This may be determined by his employer, his physician, and himself. Appropriate recommendations should then be decided for the utilization of his newly-won leisure. Charles W. Elliott, in his late eighties, was so engaged with new pursuits that he had a ten-year program worked out, and indeed he lived until the ninety-third landmark of his life.

The crowning achievement of life, it would seem, is the ability to grow old gently and gracefully—beloved of all, with happy memories of a useful existence. To attain the ultimate and final success in growing old gracefully for each of his patients, the practicing physician today needs to have a clear understanding of the major problems of the later years.

2021 West Girard Avenue

MSMS

U. S. MATERNAL DEATH RATE ESTABLISHES NEW LOW RECORD

For the first time in history, the maternal death rate for a large nation has been pushed slightly below the apparently irreducible minimum of one per 1,000 live births, according to the *Journal of the American Medical Association* (Nov. 25, 1950).

The new record, compares with 1.2 maternal deaths per 1,000 live births in 1948 and with 6.2 in 1933. On that basis, the *Journal* concluded that "childbirth has been made quite safe." In 1949 there were thirty states with rates less than 1.0, two at exactly that level and only seventeen above.

"The fact that the chances of an expectant mother surviving the diseases of pregnancy, childbirth and the puerperium [confinement period] are now better than 999 out of 1,000 is truly a story of human and social progress," said the *Journal*.

The reduction in the death rate from 1933 was attributed to several factors: (1) an increasing percentage of births in hospitals, although improvements in the medical care provided in home births have been pronounced; (2) development of prenatal care; (3) health education; (4) the administration of sulfonamides, antibiotics, whole blood or blood derivatives, and (5) improvement in training in obstetrics.

Unlike the trend in many nations, the number of births attended by midwives in the United States is being rapidly reduced, it was pointed out.

Clinical Application of Adrenergic Blockade in Sympathetic Predominance

By Fredrick F. Yonkman, M.D.
Summit, New Jersey

SYMPATHETIC PREDOMINANCE indicates an overactivity of one portion of the autonomic nervous system over certain end organs controlled or innervated by this sympathetic division. This condition may indicate that in certain instances the normal counterbalancing parasympathetic nervous system, through some insufficiency of its own, may have become overshadowed by the sympathetic portion of the autonomic nervous system. For example, tachycardia may be due to either a loss of parasympathetic control through the vagus or an augmented sympathetic control through the cardio-accelerator sympathetic nerves, if one is to consider only neural control of the heart rate. Conversely, hyperactivity of the vagus may cause hypermotility and increased tone of the intestinal tract because of a greater number or a greater strength of vagal impulses, or such hyperactivity may be due to a diminution of normal counterbalancing "quieting impulses" traversing the splanchnic nerve of the sympathetic nervous system. Physicians have long had available parasympathetic blocking agents in the form of atropine, scopolamine and other belladonna ingredients, as well as certain synthetic agents capable of producing a so-called cholinergic blockade. On the other hand, the suppression of sympathetic predominance had, until recent years, been more difficult of attainment. Pharmacologists have carefully studied numerous possibilities during the last several decades and only recently have there been successful attempts in the clinical application of such adrenergic blockade in sympathetic predominance, and it is this phase of the problem toward which we wish to direct our major attention here.

Dr. Yonkman is Director of Research, Ciba Pharmaceutical Products, Inc., Summit, New Jersey; Lecturer in Pharmacology and Therapeutics, Columbia University, College of Physicians and Surgeons.

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, at Detroit, September 21, 1950.

The outflow of nerve impulses originating in the central axis to the periphery is illustrated in Figure 1. Impulses originating in either the cerebrum, hypothalamus, medulla or spinal autonomic

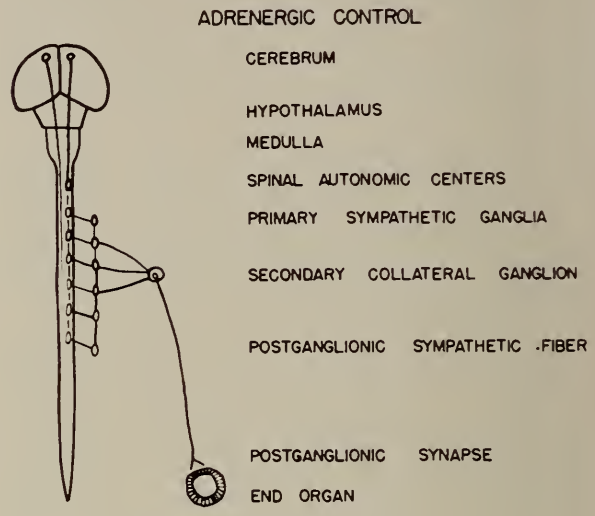


Fig. 1.

centers may traverse the primary and then the secondary sympathetic ganglia along the sympathetic nerves to the end organ, which in this case, let us presume, represents a blood vessel, either superficially located in the skin or in the deeper structure of the uterine wall. Excitation of impulses along either pathway will result in an increased tone of the blood vessel, in other words, the condition of sympathetic predominance. Such vasospasm may reflect itself in any one of the following conditions:

Peripheral vascular disease
- Arterio-obliterans
- Diabetic gangrene
- Thromboangiitis obliterans
- Raynaud's syndrome
- Livedo reticularis
- Acrocyanosis
- Causalgias
- Trench and immersion foot
- Thrombophlebitis
- Acute ischemia (polio)
- Lymphedema
- Post-traumatic edema
- Frostbite
- Scleroderma
- Endarteritis
- Herpes zoster
- Post-herpetic neuralgias
- Popliteal aneurysm and embolism
- Dysmenorrhea

Hypertension

Cerebral "accidents"
- Thrombotic and vasospastic

Space limitations will permit discussion of only a few of these interesting conditions.

In order to release or prevent the vasospasm associated with sympathetic predominance, it is obvious from Figure 1 that there are several points of attack. Barbiturates may conceivably be efficacious because of their sedative action on either the cerebrum, hypothalmus or medulla, and probably also certain portions of the spinal cord, but chiefly on the cerebrum, thus dampening the outflow of excess impulses from the central axis. A direct action of any drug upon the blood vessel wall which might produce relaxation of the smooth muscle could also counteract in part the predominant activity of the sympathetic nervous system. Such drugs, however, have not proved too successful in the conditions cited above.

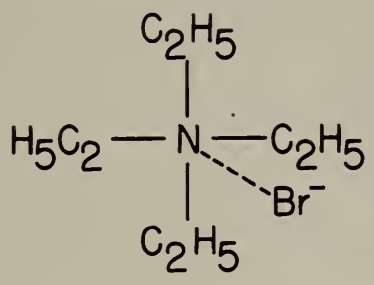


Fig. 2. Tetraethylammonium bromide.

Therefore attention was directed by various investigators toward the possibility of producing a ganglionic blockade in the sympathetic ganglia. The most successful efforts recently produced Etamon (Parke-Davis) which is a long-known compound, tetraethylammonium chloride (Fig. 2).

It produces a very effective blockade of sympathetic impulses at the synaptic point of transfer from the preganglionic to the postganglionic fibers, thus throwing a block into the sympathetic system, not at the blood vessel or end organ but, as indicated, higher up in the sympathetic pathways, namely, at the sympathetic ganglia. The effects of such adrenergic blockade are illustrated in Figure 3 taken from the work of Berry and his associates.[3]

One notes an immediate drop in systolic and diastolic blood pressure, both of which returned almost to normal levels within fifteen to thirty minutes. Concomitantly the skin temperature of both the right and left legs was increased, both features giving evidence of loss of vasoconstrictor tone. Etamon has proved to be effective in all of the vasospastic conditions cited above, but unfortunately sustained use of the drug is somewhat limited because it can be given effectively only by the intravenous route. The high doses required do not permit intramuscular, subcutaneous or oral administration because of the hypertonic and irritating effects of the drug on the subcutaneous tissues and on the gastric mucosa, respectively. Other side reactions of importance in some patients include dryness of the mouth and dysphagia, atony of the gastrointestinal tract and bladder, all of which are associated with the generalized ganglionic blocking activity of the drug. In other words, the blocking effect of the drug on the sympathetic ganglia carries over to the parasympathetic ganglia, thus resulting in atony or flaccidity of the gastrointestinal tract and the urinary bladder.

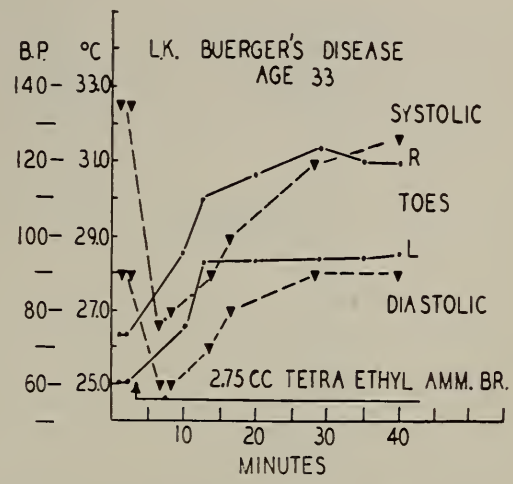


Fig. 3. The effect on blood pressure and peripheral skin temperature of blocking the autonomic ganglia with 275 mg. of tetraethylammonium bromide in a patient with thromboangiitis obliterans. The left leg had advanced occlusive changes. Superficial phlebitis was present in the right leg. From Berry et al: Surgery, 20:525 (Oct.) 1946.

Peripheral circulatory collapse may appear after the use of Etamon, but usually this can be attributed to overdosage and too early arising from the prone position after intravenous administration. If the dose is nicely titered for each patient, orthostatic hypotension becomes less important as an undesirable feature. If the ganglionic blocking activity of Etamon could be targeted to include only the sympathetic ganglia, the drug would prove to be much more valuable in the conditions cited above. Your chemical and biologic investigators are constantly in pursuit of such more selective ganglionic blocking activity in order that many of the undesirable reactions may be successfully overcome or obviated.

A potent adrenergic blocking agent which acts peripherally and not on the sympathetic ganglia is Dibenamine (Fig. 4). It is slow in onset of action but prolonged. Unfortunately it is limited entirely

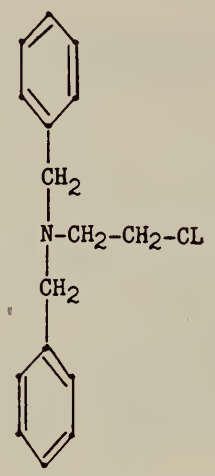


Fig. 4. Dibenamine. N,N-dibenzyl-β-chloro-ethylamine.

to intravenous administration and is necrotizing if inadvertently some of the drug be permitted to seep extravascularly. It cannot be given feasibly by the oral route because of its marked irritating action on the gastric mucosa. In this respect it is more limited orally than Etamon. Some successful attempts have resulted from placing the Dibenamine in various forms of colloidal suspension and in enteric-coated tablets.[23] Such results are so limited, however, that efforts have been made to find chemical analogues[8] of Dibenamine which might be less irritating to the gastric mucosa and still permit them to be absorbed from the gastrointestinal tract. These studies are now in progress and the reports should soon be forthcoming.

Certain alkaloids of ergot have been known for their sympathetic blocking capacity as well as their smooth muscle stimulating properties. Ergotoxine, for example, in the experimental animal can very nicely block the effects either of adrenaline administered intravenously or of sympathin (norepinephrine?) either produced endogenously by neurofaradization or exogenously administered. In the clinical subject, however, ergotoxine is much too toxic from a practical point of view. It was therefore interesting to learn of successful attempts of the Sandoz chemists[16] to develop highly effective and less toxic derivatives of the alkaloids contained in the ergotoxine group of ergot alkaloids: Ergocristine, Ergokryptine and Ergocornine (Table I).

TABLE I. COMPOSITION OF THE NATURAL ALKALOIDS OF ERGOT

	Cleavage Products of Alkaline and Acid Hydrolysis	
I. Ergotamine-group 1. Ergotamine Ergotaminine 2. Ergosine Ergosinine	Lysergic acid NH_3 Pyruvic acid d-Proline	+l-Phenylalanine +l-Leucine
II. Ergotoxine-group 3. Ergocristine Ergocristinine 4. Ergokryptine Ergokryptinine 5. Ergocornine Ergocorninine	Lysergic acid NH_3 Dimethyl-pyruvic acid d-Proline	+l-Phenylalanine +l-Leucine +l-Valine
III. Ergobasine (Ergometrine) Ergobasinine (Ergometrinine)	Lysergic acid	+d-2-Aminopropanol

Bull. Acad. Swisse Sc. Med., 2: 1, 1946-1947.

The effects of one of these, in terms of producing adrenergic blockade, may be observed as follows: a control injection of adrenaline into the femoral artery produces a definite blanching of the foot. However, some thirty minutes after the injection of the vasodilator or adrenergic blocking dihydroergocornine (DHO 180), a control injection of adrenaline intravenously into the femoral artery still produces no vasoconstriction, indicating a strong blockade effected by the ergot alkaloid.[10] What the ultimate clinical status of this group of drugs may be is difficult to state but such strong pharmacologic activity in terms of adrenergic blockade would indicate promise for these new derivatives of a well-known drug. They bear watching in the treatment of peripheral vascular disease.

Another drug capable of producing adrenergic blockade is Priscoline (2-benzyl-imidazoline hydrochloride). A glance at the formula (Fig. 5)

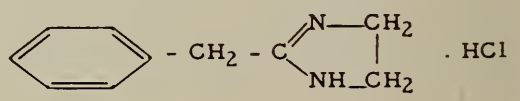


Fig. 5. Priscoline. 2-benzyl-imadazoline hydrochloride.

indicates that it is a chemical relative of histamine, the vasodilating properties of which are well known.[9,12] Apparently these chemical changes afford a prolonged period of activity. It has long been known on the Continent and in South America but only rather recently has it become available in this country. Evidence of its vasodilating properties can be observed by a flushing or reddening of the skin after its intravenous, intramuscular or oral administration. The effects of the drug on skin temperature have been studied by numerous

investigators, and Figure 6 represents the work of Wakim, Peters and Horton[22] of the Mayo Clinic, demonstrating that although all areas of the body may be affected in terms of temperature changes,

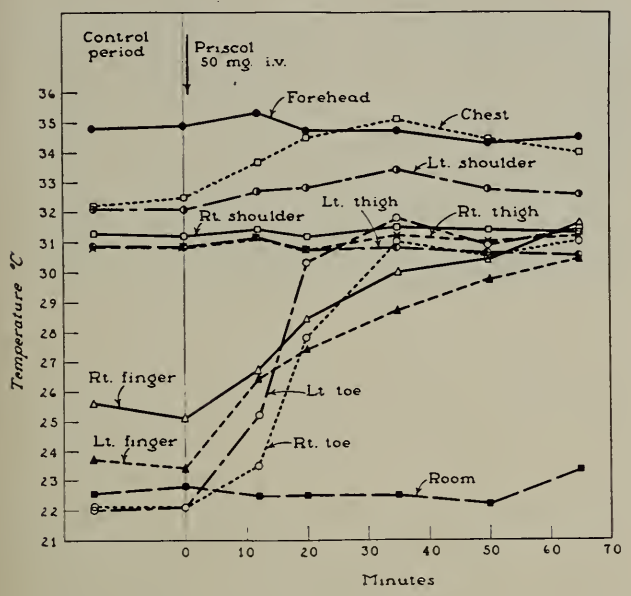


Fig. 6. Representative set of temperature curves from one of the subjects before and for about one hour after intravenous administration of 50 mg. of Priscol. The increases in temperature of toes and fingers were relatively greater than those of other areas on the body after the drug was given. From Wakim, K. G., et al: J. Lab. & Clin. Med., 35:53 (Jan.) 1950.

those most favorably affected are the areas of the fingers and toes, a feature of practical import when considering the application of adrenergic blockade in the clinical conditions cited above.

Effects definitely not desirable from the therapeutic point of view and varying in type and degree are exhibited by approximately 25 to 30 per cent of the patients taking Priscoline (Table II).[7,15] There may be a flushing of the skin and an appearance of goose flesh as well as a feeling of chilliness in some patients. They may require withdrawal of the drug but in most instances these are not disturbing enough to necessitate discontinuance of therapy. More disturbing, although less frequent, are the symptoms of nausea, postural dizziness, apprehension, and occasionally vomiting, audible peristalsis and sweating. At times there may be complaints of headache or a stuffy nose, the latter probably indicating that a complete adrenergic blockade had been effected in the nasal area. The latter symptoms appear, however, only as a rule after higher doses than normally are employed.

TABLE II. SYMPTOMS OR SIDE EFFECTS OF TAKING PRISCOLINE (2-BENZYL-4, 5 IMIDAZOLINE HCL)

Single Dose, 25-75 mg.
  Always:
    Flushing of skin, goose flesh
  Occasionally:
    Nausea, apprehension, palpitation.
Doses of 175-200 mg. within 3 hours
  Always:
    Flushing, goose flesh, chilly feeling, postural hypotension.
  Usually:
    Nausea, postural dizziness, apprehension.
  Occasionally:
    Vomiting, audible peristalsis, palpitation, sweating, dizziness, headaches, stuffy nose.
Chronic Treatment—50 mg. q. 4 h—75 mg. q. 2 h
  Always:
    Flushing, goose flesh
  Occasionally:
    Palpitation, nausea, apprehension.

Grimson, K. S., et al: Ann. Surg., 127:970, 1948.

Most patients become accustomed to the milder side reactions and some even to the nausea and gastrointestinal distress. The latter can sometimes be obviated by either a reduction in dosage or by the addition of cholinergic blocking, antivagal agents such as atropine, belladonna, and some of the newer synthetic agents such as Banthine, Pavatrine, Syntropan and Trasentine (Fig. 7).[24]

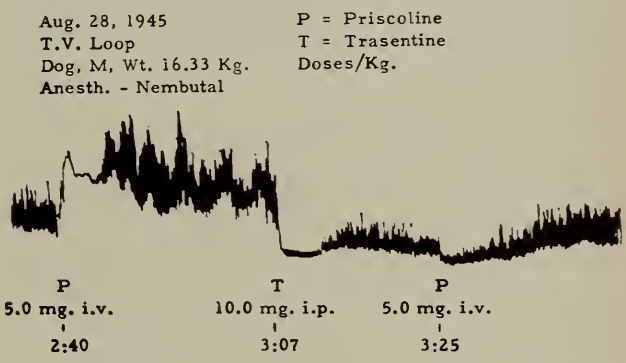


Fig. 7.

More recently other side reactions have become more important and these appear in the form of gastric hypersecretion to the point of exacerbation of the symptoms of peptic ulcer, exacerbation of coronary insufficiency and "hyperinsulinism" in diabetes mellitus. The first of these usually can be controlled by either reduction of dosage or by the addition of appropriate antacid therapy.[6] Such hypersecretion may be associated with the imidazoline or histaminic nature of Priscoline. Exacerbation of coronary insufficiency may be due to either one of two features: (1) a redistribution of available blood into dilated areas away from an already embarrassed myocardium, or (2) a direct cardiotonic effect of Priscoline as evidenced by palpitation and increased cardiac output. There have been reports in approximately twenty or thirty

TABLE III. 24 PATIENTS TREATED FOR SEVERE DYSMENORRHEA WITH ORAL "PRISCOLINE"

(Dosage Interval 3-24 Hours)

	50 Mg. Dosage (15 Patients)		25 Mg. Dosage (9 Patients)	
Relief of Pain	No. of Menstrual Days	Per Cent	No. of Menstrual Days	Per Cent
Complete	18	29	8	36.35
Good	18	29	8	36.35
Partial	20	32.2	5	22.7
None	6	9.7	1	4.5
Total	62	99.9	22	99.9

Griffith, M. I., and Little, J. M.; South. M. J., 42: 1082 (Dec.) 1949.

TABLE IV. 25 PATIENTS TREATED FOR SEVERE DYSMENORRHEA WITH INTRAVENOUS "PRISCOLINE" AND INTRAVENOUS NICOTINIC ACID

	"Priscoline" (13 Patients)		Nicotinic Acid (12 Patients)	
Relief of Pain	No. of Menstrual Days	Per Cent	No. of Menstrual Days	Per Cent
Complete	15	46.8	10	55.5
Good	7	21.8	1	5.55
Partial	9*	28.1	6†	33.3
None	1	3.1	1‡	5.55
Total	32	99.8	18	99.9

*Three of these given a follow-up of intravenous nicotinic acid with complete relief in all three.
†Five of these given follow-up of 50 milligrams of intravenous "priscoline" with complete relief in two and good relief in three.
‡Given follow-up of 50 milligrams of intravenous "priscoline" with no relief. (See case report No. 3.)
Griffith, M. I., and Little, J. M.; South. M. J., 42: 1082 (Dec.) 1949.

diabetic patients of "hyperinsulinism" to a degree where the insulin requirements had to be materially reduced. The reason for this lowering of blood sugar is unknown, but this problem is being investigated at the present time. We call your attention to these important undesirable features associated with the administration of Priscoline in occasional patients with the hope of obviating embarrassing and disturbing consequences.

There are three especially important clinical indications in which adrenergic blockade may be successfully applied. These indications are relatively new and may bear special emphasis because of their nature and distribution as well as importance in the public mind. Here again we wish to stress the fact that any effective adrenergic blocking agent, whether it be ganglionic or peripheral in nature, may produce some degree of favorable action. Neurospastic dysmenorrhea has been successfully treated[5] by the concomitant use of nicotinic acid and Priscoline, both vasodilators; the former operating by direct action on the smooth muscle of the blood vessel and the latter by a dual action, namely, a direct histaminic action on the smooth muscle of the blood vessel as well as a peripheral adrenergic blocking activity.

Although Priscoline, administered orally, was effective (Table III) better results were obtained when such oral administration was accompanied by the intravenous administration of nicotinic acid (Table IV). Griffith and Little believe that the uterine vessels, particularly the arterioles, contain sensory dendrons which, when impinged upon or compressed under the influence of sympathetic predominance, give rise to painful stimuli. Their thesis seems to be supported by the results obtained with the use of vasodilators and an adrenergic blocking agent which obviously would effect a decompression of the "excited" sensory painful dendrons.

The pain associated, in some instances, with the acute phase of poliomyelitis, according to Smith and his associates,[19] may well be due to involvement of sympathetic ganglia, as has been histologically demonstrated, as well as to involvement of the lateral horns of the spinal cord. The well-known damaging effects of the virus of poliomyelitis on the cell bodies of the anterior horns apparently carries over to the sympathetic neurons and especially to the sympathetic ganglia in certain regions (Fig. 8).

The "irritating" effects of the virus in the sympathetic chain could manifest itself in painful vasospasm in certain blood vessels, either superficially or deeply located (Fig. 9).[11]

If the hot pack treatment of Sister Kenny, when successful, exercised its benefits presumably through vasodilation, Smith et al reasoned that prolonged treatment with a relatively safe, easily administered drug might produce similar benefit. Their report,[18] covering some 600 cases treated at the Kingston Avenue Hospital in Brooklyn, indicates that Priscoline seemed to have been of definite benefit, but to a varying degree, in approximately 75 per cent of the cases. Similar studies[20] have been made at the Herman Kiefer Hospital of Detroit by Dr. Franklin Top and his associate, Dr. O'Donnell. They likewise found Priscoline to be effective to a varying degree in approximately 65 per cent of eighty-eight patients thus studied. Their results, however, were not as striking as those of Smith and his associates. A competely negative report as to the value of Priscoline in this condition is that of Geisler and his associates[4] who concluded that, according to the technique which they employed, they had observed no benefit from this type of vasodilating treatment. On the other hand, more recently, Polley of the St. Louis

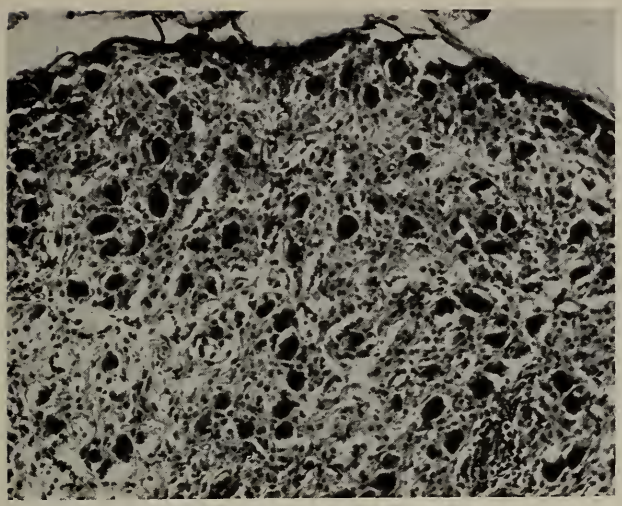


Fig. 8. Section of sympathetic ganglion in cases of bulbar poliomyelitis showing round cell infiltration of stroma. From Smith, E., et al: The role of the sympathetic nervous system in acute poliomyelitis. J. Pediatrics, 34:7 (Jan.) 1949.

University Hospital (St. Mary's Group of Hospitals) reported[13] as follows:

"Experience in the use of Priscoline led to the following conclusions:

"1. Fever was not considered a contraindication for the use of Priscoline. However, a greater tendency toward nausea was noted among the febrile patients.

"2. In general no toxic effects were noted. The appearance of a 'flush' and the occurrence of nausea was expected and did appear. Patients behaving in this manner were continued on the drug but at a reduced dosage. Eliciting a flush did not seem to increase the efficency of the therapeutic response.

"3. It was the opinion of those who had observed the operation of the same division during previous years that the results achieved with Priscoline were equal to the results obtained when the hot pack methods had been closely followed. It was a pleasant experience to find an efficient substitute for the time-consuming and cumbersome hot pack equipment."

To reconcile the variance of a single unfavorable report with the successful reports from several other clinics is difficult. Only time will tell whether the sustained vasodilatation produced by Priscoline, Etamon and other agents will prove to be of real significance, but the majority of available reports warrants encouragement, if not optimism.

Acute cerebral "accidents," whether due to hemorrhage or thrombosis, may well have an element of vasospasm associated with them. This undoubtedly is of a secondary reflex nature associated with hemorrhage or thrombosis but the end

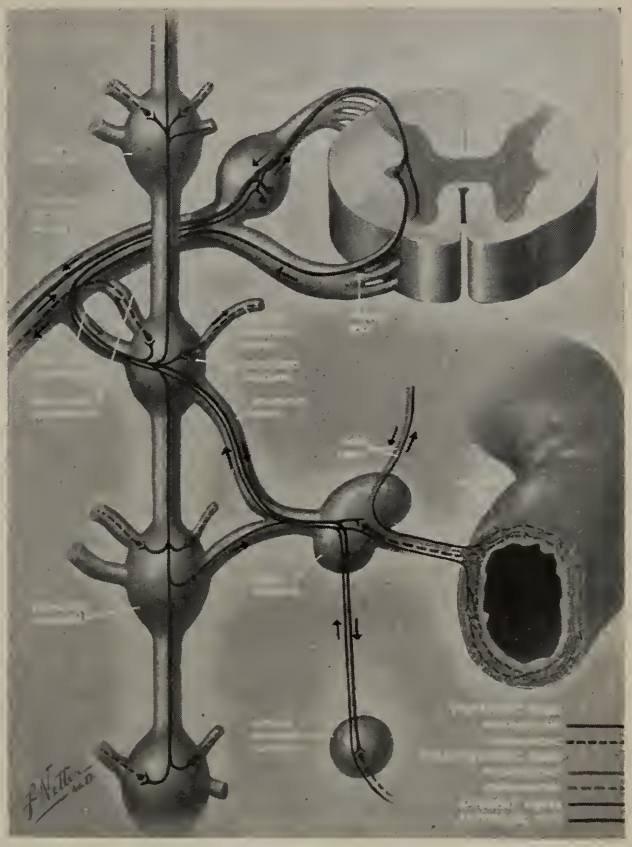


Fig. 9.

result would be similar to that associated with primary vasospasm unaccompanied by either hemorrhage or thrombosis. In any event there is definite proof that sympathetic predominance to the point of vasospasm frequently if not invariably prevails in cerebral vascular accidents. Not only are sympathetectomies or stellate ganglionic blockade with novocaine effective,[17] but Etamon and Priscoline have produced similar beneficial results by way of relieving the vasospasm of cerebral vessels. Prandoni and Alpert[1,14] have employed 3 to 6 mg. of Priscoline, intracarotidly, on the affected side, with benefiecial results following almost immediately. Such results have been achieved by Bennett[2] after intravenous administration of Priscoline. Bennett states:

"About 4:30 a.m. on January 10 I was called to see a man in his early seventies who had just suffered a cerebral vascular accident. This man in the past three years had had a coronary thrombosis as well as two previous cerebral episodes of thrombosis. At about 4:00 a.m. he was found lying on the floor by his daughters, apparently having gotten up to go to the bathroom. When seen by me, he was lying in bed unable to talk, could barely move his fingers and toes on the right, and had a very pronounced facial paralysis. His blood pressure was 180 and his pulse was 72. I gave him some nitroglycerine

under the tongue and started back home, expecting to see him again in the morning. However, the night before my father had called my attention to an article* in the JAMA of January 7, entitled 'Stellate Ganglion Block in the Treatment of Acute Cerebral Thrombosis and Embolism.' I did not read the article the night before so I decided to return to the office and read it immediately. When I had finished doing this, I thought that I could accomplish the same result almost immediately by giving him some Priscoline intravenously. I called up his son-in-law, who is also a physician, and at about 5:15 a.m. we injected 1.5 c.c. (37.5 mg.) intravenously, and within two minutes his facial paralysis disappeared, he was able to say a few words and also move the arm and leg that had been previously almost completely paralyzed. We then made arrangements for him to go to the hospital and at 7:45 that morning he received his first novocaine stellate ganglion block and has had four others since. He is now able to walk around, has an excellent grip in his previously impaired hand and, except for some remaining difficulty in his speech, seems to have made an excellent recovery. He was also given Dicumerol by mouth.

"I would like to know if this procedure has been used before and also whether you can think of any contraindications to its use in such cases, even though it may be impossible to immediately differentiate between cerebral hemorrhage and cerebral thrombosis. Following the injection his pulse rate increased quite quickly from 72 to 96 and then returned gradually to the 70's.

"If this procedure should prove to be without contraindication, I think it might result in a great deal of prevention of prolonged disability following cerebral vascular accidents. Its particular usefulness would seem to me to be the fact that it can be administered by any general practitioner almost as soon as he sees the patient and thus avoid the usual necessary delay that would occur if one were to wait until stellate ganglion block therapy could be instituted."

The value of Priscoline orally in this type of patient has also been reported by VandenBerg,[21] who states:

"I have had an increasing number of cerebrovascular disorders which have apparently benefited from oral and parenteral Priscoline. This has been especially gratifying in hypertensive encephalopathies and as prophylaxis during prodromal paresthesias which so frequently precede actual cerebral thrombosis."

It would seem then that sympathetic predominance is an important factor in the etiology of certain clinical dyscrasias. The fact that it can be so readily nullified or alleviated by the clinical application of certain antisympathetic or adrenergic blocking agents offers hope for the general practitioner as well as for the specialist; the former sees many patients thus afflicted in his daily practice, and he now has available several agents which can assist him in counteracting the effects of sympathetic predominance. It is the physician's responsibility to individualize his therapy to suit the particular patient at hand in order that the proper medicament may be administered as he applies his art. As yet the ideal agent, in terms of efficiency, safety and freedom from side effects, has not been found but one may rest assured that the current intensive investigations may offer still greater promise.

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(Continued on Page 624)

Clinical Use of the Newer Antibiotic Agents in Surgery

By W. A. Altemeier, M.D.

Cincinnati, Ohio

THIS DISCUSSION is intended to review our experience with the newer antibiotic agents and to consider the problems of their correct choice and use in the treatment of various surgical infections.

Although a large variety of antibiotic agents with antimicrobial effects for an expanding range of pathogenic microorganisms have been introduced, only a few have been of sufficiently low toxicity to permit their clinical investigation. Those which have been investigated clinically during the past four years include bacitracin, polymyxin, chloromycetin, aureomycin, terramycin, and neomycin. The antimicrobial spectrum, dosage, methods of administration, untoward reactions, and clinical indications of each of these agents will be discussed first.

Bacitracin

Bacitracin's antibacterial spectrum is extensive and very similar to that of penicillin (Table I). Its action is similar in certain respects to that of penicillin, differing in that its bactericidal activity appears to be directly proportional to its concentration.

Administration and Dosage.—Bacitracin is administered parenterally by intramuscular injection in doses of 10,000 units every six hours for forty-eight to seventy-two hours. If no signs of renal irritation develop within this period, the dose may be increased to 15,000, 20,000, or 30,000 units every six hours. Doses in excess of 30,000 units are not recommended unless the infecting organism is relatively resistant to bacitracin, no signs of nephrotoxicity develop with lesser preliminary dosages, and no other effective agent is available. It should be administered in a solution of 2 per cent novocaine in physiological saline to minimize pain at the site and time of injection.

TABLE I. MICROORGANISMS SENSITIVE TO BACITRACIN

Hemolytic streptococcus	Bacillus pseudodiphtheriae
Nonhemolytic streptococcus	Clostridium tetani
Microaerophilic streptococcus	Clostridium welchii
Anaerobic streptococcus	Clostridium histolyticus
Staphylococcus albus	Clostridium septique
Anaerobic staphylococcus	Clostridium oedematiens
Pneumococcus	Clostridium sporogenes
Meningococcus	Clostridium sordelli
Gonococcus	Actinomyces bovis
Bacillus diphtheriae	Treponema pallidum
Staphylococcus aureus	Endomoeba histolytica

Bacitracin may be used very effectively as a topical agent for the treatment of superficial infections either as a dilute solution in physiological saline or an ointment containing 50 to 500 units of bacitracin per cubic centimeter or gram.

Before the start of bacitracin therapy, a urinalysis, phenolsulfonphthalein renal function test, and determinations of the blood urea nitrogen or nonprotein nitrogen should be made. If evidence of renal damage exists, bacitracin therapy should not be used or be used with great caution. During the first four days of therapy, daily urinalyses should be done and phenolsulfonphthalein renal function tests should be performed every other day. If albuminuria or granular casts develop, further administration of bacitracin may be continued with great caution. However, if the albuminuria increases to 3 or 4 plus, or if hematuria develops, further administration of the agent should be discontinued, particularly if nausea, vomiting, or signs of nitrogen retention occur.

Advantages.—The chief advantages of bacitracin as a chemotherapeutic agent include slight or little tendency of bacteria to develop resistance to its action, either *in vitro* or *in vivo;* its effectiveness in the presence of blood, pus, wound exudates, or necrotic tissue; its lessened tendency to produce hypersensitivity reactions in patients treated either systemically or locally; its effectiveness against many penicillin-resistant, streptomycin-resistant, or other antibiotic-resistant infections; and its superiority to penicillin in the treatment of some microaerophilic streptococcal infections.

Disadvantages and Untoward Reactions.—However, certain disadvantages of bacitracin have tended to limit its selection for systemic use and its dosage. Signs of nephrotoxicity may occur on the third to fifth day after the start of parenteral treatment, as evidence by urinary albuminuria, granular casts, renal epithelial cells, and microscopic

From the Department of Surgery, College of Medicine of the University of Cincinnati, and the Cincinnati General Hospital.

Presented at the eighty-fifth annual session of the Michigan State Medical Society, Detroit, September 21, 1950.

TABLE II. BACTERIA SENSITIVE TO POLYMYXIN B

H. influenzae	A. aerogenes
H. pertussis	Ps. pyocyaneus (some strains)
B. typhosus	Vibrion choleri
B. paratyphosus	B. dysenteriae
E. coli	B. tularense
N. catarrhalis	B. pestis
Ps. aeruginosa	B. fecalis alcaligenes

hematuria. In some instances, elevation of the blood urea nitrogen or nonprotein nitrogen levels may occur. The degree of albuminuria may vary from a trace to 4 plus. The lesion produced is a lower nephron nephrosis. Pulaski reported an incidence of nephrotoxic phenomena in about half of a series of twenty patients treated with bacitracin, and we have noted similar signs in 44 per cent of our cases studied. Discontinuation of bacitracin is usually followed by disappearance of the albuminuria within three to seven days.

Clinical Indications.—In general, bacitracin has been used effectively in a wide variety of infections produced by hemolytic and nonhemolytic streptococci, anaerobic and microaerophilic streptococci, staphylococci, pneumococci, gonococci, actinomyces, spirochetes of the mouth, and the clostridia of gas gangrene. At the present time, however, its parenteral use is usually reserved for patients without renal disease and with infections produced by strains of the above bacteria which are resistant to other available antibiotic agents such as penicillin, aureomycin, and chloromycetin. Further refinement with a reduction of the nephrotoxic factors of bacitracin are necessary before the drug will be acceptable for general clinical use and before it can be distributed widely for this purpose.

Polymyxin

Polymyxin B's antibacterial activity is highly selective for Gram-negative bacteria and it is bactericidal and not bacteriostatic. It is unique as a chemotherapeutic agent in its remarkable specificity for Gram-negative bacteria only, which distinguishes it from all other antibiotics thus far reported (Table II).

One distinct advantage of polymyxin B is the infrequency with which resistance is developed by strains of bacteria subjected to its action.

Administration and Dosage.—Polymyxin is administered parenterally by intramuscular injection every four to eight hours in doses of 2.2 mg. per kg. of body weight to produce antibacterial levels in the circulating blood and lymph. When given orally, it is not absorbed in sufficient amounts to be effective, although this route of administration produces a marked reduction in the number of intestinal bacteria of the Gram-negative variety. It may also be used topically when applied as a solution or ointment to areas infected by susceptible bacteria.

Untoward Effects.—Over one-half of our cases which were given full therapeutic dosage have shown some evidence of toxicity such as vertigo, headaches, paresthesia, albuminuria, ataxia, or microscopic mild hematuria. When used topically, no evidence of toxicity was noted. Pain and local irritation at the site of injection have been of sufficient degree to warrant preparation of solutions for intramuscular injection in 1 or 2 per cent novocaine.

Drug fever developing in three to five days after the onset of therapy occurred in one of our patients, but no effect was observed on the red or white blood cell counts in any of those observed.

Clinical Indications.—Infections produced by susceptible Gram-negative bacteria have been very successfully treated with polymyxin B, including infections of the urinary tract, wounds, meninges, pleura, and blood stream. Its general use at the present time, however, is to be discouraged because of its inherent toxicity. It may be used with caution in the therapy of infections produced by Gram-negative bacteria sensitive to its action, but resistant to other available and less toxic antibiotics. It is hoped that some means of decreasing its toxicity will be developed.

Aureomycin

Aureomycin is a particularly effective antibiotic agent, whose antibacterial activity is extensive for both Gram-negative and Gram-positive bacteria as well as some virus and rickettsial forms (Table III). Of the Gram-negative bacteria, E. coli, A. aerogenes, E. typhosus, some strains of B. proteus, and B. alcaligenes fecalis are generally sensitive to the action of aureomycin; the majority of strains of Proteus vulgaris and Pseudomonas aeruginosa are relatively resistant. Of the Gram-positive bacteria, most strains of the various aerobic and anaerobic pyogenic cocci are definitely susceptible to its action, but to a lesser degree than to penicillin. For example, our *in vitro* tests in sixty-three strains of hemolytic staphylococcus aureus showed the antibacterial activity of aureomy-

TABLE III. MICROORGANISMS SENSITIVE TO AUREOMYCIN

Meningococcus	H. influenzae
Gonococcus	B. typhosus
Pneumococcus	B. paratyphosus
Staphylococcus aureus	B. tularense
Staphylococcus albus	N. catarrhalis
Streptococcus faecalis	B. dystenteriae
Streptococcus mitis	B. faecalis alcaligenes
E. coli	Borellia novyi
A. aerogenes	Treponema pallidum
Br. melitensis	Rickettsia rickettsi
Bacteroides group	Undetermined number of viruses

TABLE IV. MICROORGANISMS SENSITIVE TO CHLOROMYCETIN

E. coli	B. dysenteriae
A. aerogenes	Rickettsia prowazeki
B. typhosus	Rickettsia rickettsi
B. paratyphosus	Rickettsia orientalis
Proteus vulgaris	Rickettsia mooseri
H. pertussis	Psittacosis virus
Br. suis	Lymphogranuloma virus
Br. melitensis	Atypical pneumonia virus
Salmonella enteritidis	Staphylococcus aureus
B. tularense	Staphylococcus albus
N. catarrhalis	Streptococcus hemolyticus
Pseudomonas aeruginosa (some strains)	Streptococcus viridans
Borellia recurrentis	B. anthracis
	Pneumococcus

cin to be from 2 to 330 times less than that of penicillin, depending upon the susceptibility of the different strains. A significant characteristic of aureomycin is its ability to attack microbes such as viruses which are located within the cell membrane of human cells. It is most effective against actively reproducing bacteria and relatively ineffective for adult or resting cultures.

Administration and Dosage.—Aureomycin is administered by preference orally in doses of 20 to 75 mg. per kg, for twenty-four hours. For the average adult, this means a dose of approximately 500 mg. every four hours or 750 mg. every six hours. When administered orally, aureomycin is readily absorbed from the gastroenteric tract into the general circulation, and effective antibacterial concentrations are easily produced in the blood and tissues, urine, cerebrospinal fluid, pleural fluid, bile, and peritoneal fluid.

Aureomycin may also be injected intravenously, there being a 5:1 ratio in dosage between the oral and parenteral methods of administration. The usual adult dose for intravenous injection is therefore 100 mg. every four hours. Of the two available forms, we prefer aueromycin glycinate to the preparation made in leucine solution, since the former was more stable and much less productive of local thrombophlebitis than the latter. Although the oral route is usually preferable, the intravenous route is desirable when a high antibacterial level is wanted at once or when absorption from the gastroenteric tract is not possible for one of various reasons.

Aureomycin may also be applied topically as a solution or ointment in the treatment of superficial lesions produced by susceptible microorganisms.

Untoward Effects.—The toxicity of this agent is low, but the development of nausea, vomiting, or diarrhea occurred in 24 per cent of our patients, making them uncomfortable. Pruritis, stomatitis, allergic skin reactions, and Herxheimer type of febrile reaction have been occasionally noted. We have noted no evidence of anemia, leukopenia, renal irritation, or liver impairment caused by aureomycin.

Clinical Indications.—The full clinical potentialities of aureomycin are still undetermined. It is indicated in the treatment of many Gram-positive as well as Gram-negative bacterial infections, and it is of particular value in the management of penicillin, streptomycin, and sulfonamide resistant infections.

Included in the surgical infections treated successfully with aureomycin at the Cincinnati General Hospital are cases of septicemia, wound infection, cellulitis, and osteomyelitis produced by the hemolytic staphylococcus aureus or the hemolytic streptococcus; cases of recurrent burrowing sinuses or abscesses caused by the anaerobic streptococcus; patients with Gram-negative bacillary infections such as septicemia, cholangitis, urinary tract lesions, wound infections, and peritonitis.

In addition, either an excellent or a good result was obtained with aueromycin in 66.6 per cent of our cases of mixed Gram-positive and Gram-negative infections such as wound infections, peritonitis, empyema, urinary tract infections, crepitant cellulitis of the abdominal wall, and intraabdominal abscesses and pelvic inflammatory disease. It is of definite value in the treatment of gas gangrene and other infections caused by Clostridium welchii. It has also been used effectively in patients with lymphopathia venereum. This antimicrobial agent is undoubtedly a valuable addition to the field of chemotherapy.

Chloromycetin

Chloromycetin is likewise an exceedingly valuable antibiotic agent with a marked antibacterial activity against a large number and variety of microorganisms (Table IV). In addition to the

Gram-negative bacilli sensitive to the action of aureomycin, 54 per cent of the strains of B. Proteus and 40 per cent of those of Ps. aeruginosa are susceptible to its action.

It also shows considerable activity against the various Gram-postive bacteria, but is from 33 to 166 times less antibacterial for Gram-positive cocci than penicillin. It has no significant effect against protozoa and fungi. While its antivirus and antirickettsial activity has been very significant in nonsurgical lesions, it has been relatively unexplored in surgical conditions.

Administration and Dosage.—Chloromycetin is given orally by preference and may also be administered intravenously, rectally, or topically.

After its oral administration, it is readily absorbed and adequate antibacterial levels are produced in the circulating blood, lymph, tissues, urine, bile, pleural and peritoneal fluids, wound exudates, and cord blood of the newborn. The oral dose recommended is 50 to 100 mg. per kg. of body weight for twenty-four hours, divided into four or six doses and given at equal intervals. Frequently, an initial larger or primary dose may be given. In the average adult patient, the oral dose used by us has been 500 mg. every four hours or 750 mg. every six hours. A satisfactory parenteral form of chloromycetin has been developed containing 25 per cent of the antibiotic in 50 per cent acetyl dimethylamine. The dose recommended for intravenous injection is 20 to 30 mg. per kg. of body weight per day.

Untoward Effects.—There has been little evidence of toxicity manifest in the 215 patients treated with chloromycetin, and no serious toxic reaction developed in any patient. Nausea and vomiting occurred in six cases and diarrhea in one. A maculopapular cutaneous rash appeared in three patients on the fourth to seventh day of therapy. A stomatitis with burning of the tongue and mucous membranes was noted in two. We have noted no evidence of suppression of the bone marrow with hemopoietic changes, although these have been described in experimental animals.

Clinical Indications.—Like aureomycin, the clinical potentialities of chloromycetin for surgical infections have not been fully explored, but there is no dubt that chloromycetin is a valuable addition to the field of chemotherapy. It is very effective in the treatment of Gram-negative bacterial infections and in mixed infections of wounds and the urinary tract in which the causative agents are E. coli, A. aerogenes, E. typhosus, or B. proteus, but less so in those caused by Pseudomonas aerogenosa. Therapeutic response of chronic urinary tract infections without obstructive phenomena has been prompt, the urine usually becoming clear in twenty-four to thirty-six hours.

TABLE V. ACTIVITY IN VITRO OF CRYSTALLINE TERRAMYCIN HYDROCHLORIDE—SPECIES SENSITIVE TO IT

Aerobacter aerogenes	B. tularense
K. pneumoniae	Staphylococcus albus
E. coli	Staphylococcus aureus
S. typhosa	Hemolytic streptococcus
S. paratyphi	Pneumococcus
S. schottmuelleri	Gonococcus
S. pullorum	H. influenzae
Shigella paradysenteriae	Cl. welchii
Bacillus subtilis (FDA 219)	Brucella bronchisepticue

Evidence is accumulating that chloromycetin is of use in the treatment of acute secondary peritonitis, wound infections, putrid empyema, pelvic inflammatory disease, cholangitis, pylephlebitis, gonorrheal infections, and anaerobic streptococcal lesions. In mixed infections which have been particularly resistant to therapy in the past because of the synergism of infecting bacteria and progressive spread, our clinical experience indicates that the use of chloromycetin in conjunction with the indicated surgical procedure is of definite benefit in the majority of instances.

Chloromycetin is also effective in the treatment of acute pyogenic infections produced by the Gram-positive cocci such as furuncles, carbuncles, wound infections, et cetera, and has been particularly valuable in those produced by penicillin resistant strains.

It is of definite value in the treatment of gas gangrene and other infections caused by Cl. welchii.

Except in lymphopathia venereum, the antivirus and antirickettsial effect of chloromycetin for surgical lesions has not been adequately explored. The antibiotic is of little effect in the treatment of tuberculosis.

Terramycin

Another new and very promising antibiotic to be recently introduced is terramycin. This agent has a wide antimicrobial activity *in vitro* and *in vivo* against a large variety of microorganisms (Table V), including various Gram-negative bacteria, Gram-postive pyogenic cocci, and a variety of viruses and rickettsia. In high concentrations

TABLE VI. ANTIMICROBIAL SPECTRUM

Pneumococcus	E. typhosus
Streptococcus viridans	B. coli
Streptococcus hemolyticus	Pseudomonas aeruginosa
Staphylococcus aureus	B. abortus
Staphylococcus albus	K. pneumoniae
Streptococcus faecalis	Proteus vulgaris
B. anthracis	Salmonella schottmuelleri
A. aerogenes	M. tuberculosis

it appears to inhibit the infection of a chick embryo with influenza A virus.

Administration and Dosage.—Terramycin is administered by the oral route only and the recommended dosage is 500 to 750 mg. every six hours for the average adult. In severe infections, a primary or initial dose of 1.0 gram may be given. In small children, a dose of 100 to 150 mg. per kg. of body weight per day may be used.

Terramycin is readily absorbed and effective levels are quickly produced in the blood, lymph tissues, peritoneal and pleural exudates, bile wound exudates, cord blood of the newborn, and urine.

Untoward Effects.—Terramycin is well tolerated by the majority of patients, although signs of gastrointestinal irritation may be manifest as nausea or vomiting. In one of our cases headache and parasthesia developed during therapy with this antibiotic. In another patient, an allergic skin reaction occurred.

Clinical Indications.—Early clinical studies indicate that terramycin is a valuable antibiotic passing significant therapeutic effects for a variety of infections produced by the various Gram-negative bacteria other than B. proteus and Pseudomonas aeruginosa, hemolytic staphylococcus aureus, pneumococci, streptococci, gonococci, and Clostridium welchii. It has also been used successfully in a small number of cases of lymphopathia venereum, granuloma inguinale, intestinal amoebiasis, bacteroides septicemia, and actinomycosis. It has been of no value in the treatment of tuberculosis.

Neomycin

Neomycin has been recently introduced as another antimicrobial agent with a wide selective antimicrobial action (Table VI).

Of particular interest is the effectiveness of this agent in infections produced by Pseudomonas aeruginosa and proteus vulgaris, organisms which are notoriously resistant to treatment with other antibiotic agents except chloromycetin and to a lesser extent aureomycin and streptomycin. Its antibacterial effectiveness for the pneumococcus and streptococcus is somewhat less than that of penicillin and aueromycin, and approximately the same as penicillin for the staphylococci.

TABLE VII

Type of Microorganism	*Effective Antibiotic Agent*
Hemolytic streptococcus	Penicillin, aureomycin, chloromycetin, bacitracin, streptomycin, neomycin, terramycin.
Nonhemolytic streptococcus	Penicillin, aureomycin, chloromycetin, bacitracin, streptomycin, neomycin, terramycin.
Staphylococcus	Penicillin, aureomycin, chloromycetin, bacitracin, streptomycin, neomycin, terramycin.
Pneumococcus	Penicillin, aureomycin, chloromycetin, bacitracin, streptomycin, neomycin, terramycin.
A. aerogenes	Aureomycin, chloromycetin, streptomycin, neomycin, terramycin.
E. typhosus	Aureomycin, chloromycetin, streptomycin, neomycin, terramycin.
E. coli	Aureomycin, chloromycetin, streptomycin, neomycin, terramycin.
Microaerophilic streptococcus	Aureomycin, chloromycetin, bacitracin, penicillin.
Anaerobic streptococcus	Aureomycin, chloromycetin, bacitracin, penicillin.
Gonococcus	Penicillin, aureomycin, chloromycetin, bacitracin, terramycin.
Clostridium welchii	Penicillin, aureomycin, chloromycetin, bacitracin.
Streptococcus faecalis	Penicillin, aureomycin, chloromycetin, bacitracin, neomycin.
B. anthracis	Penicillin, aureomycin, chloromycetin, neomycin.
Pseudomonas aeruginosa	Chloromycetin, stretpomycin, neomycin.
Proteus vulgaris	Chloromycetin, streptomycin, neomycin.
Actinomyces bovis	Penicillin, bacitracin.
Endamoeba histolytica	Bacitracin, terramycin.
M. tuberculosis	Aureomycin, streptomycin, neomycin.

Administration and Dosage.—Neomycin may be administered parenterally or topically and the average adult dose for parenteral injection is 500 mg. every twelve hours for the average adult. Parenteral injection should be used with caution because of neomycin's toxic effects. When used topically, its effect has been noteworthy and not associated with toxic reactions.

Untoward Reactions.—Unfortunately renal irritation may occur with the use of neomycin. It is approximately twice as toxic as streptomycin, four times as toxic as chloromycetin, five times as toxic as bacitracin, and much more toxic than penicillin when used in mice.

Choice of Antibiotic Agents for Various Infecting Microorganisms

On the basis of data obtained from the literature and from our own experiments *in vitro* and *in vivo,* Table VII has been prepared to indicate the various antibiotic agents effective for the different strains of microorganisms. The choice open

(Continued on Page 605)

Complications of Diabetes

By Priscilla White, M.D.
Boston, Massachusetts

THE COMPLICATIONS of diabetes fall into four main groups. These are as follows: (1) ketoacidosis, (2) sepsis, (3) the neuropathies, and (4) the vascular lesions. It is the purpose of this discussion to evaluate the causes of these complications, their modes of prevention and their therapeutic management.

Ketoacidosis

To the common clinical causes of diabetic coma, namely, infection, overeating and the omission of insulin, one must add starvation as is encountered in weight reduction and pregnancy. The preventive treatment of ketoacidosis resolves itself largely into the education of the patient so that he may avoid overeating, avoid omitting insulin carelessly and know the wise use of supplementary doses of rapidly acting insulin at four-hour intervals, the amount depending upon the degree of reduction of the Benedict solution (such as units 12 if the reduction is red or orange, units 8 if yellow).

The plan for coma therapy in the George F. Baker Clinic is the following: insulin in doses from 200 to 2000 units in the first six hours of treatment administered subcutaneously unless the patient is unconscious. Then insulin administered subcutaneously is supplemented with insulin administered intravenously. The dosage depends largely upon the height of the blood sugar. Physiological salt solution is given intravenously in amounts varying from 3,000 to 12,000 c.c. in twenty-four hours. Gastric lavage is routine. Concentrated salt solution, 10 per cent, caffeine sodium benzoate and blood transfusions are used if the patient develops anuria or circulatory collapse. Sedation and glucose are forbidden. Sodium lactate solution has been given infrequently but is indicated if the acidosis has appeared refractory. With this treatment our patient survival has been 98 per cent.

The recent emphasis upon the treatment of diabetic coma throughout the country has concerned the need for potassium therapy. Potassium deficit appears to result from diuresis and dehydration. The administration of insulin and of glucose accomplish the storage of glycogen and of nitrogen and thereby help to deplete the cells of potassium. Potassium deficit is suspected clinically by respiratory failure, the fish mouth expression of the patient and by muscular flaccidity. The electrocardiogram shows flattening or inversion of T waves, low voltage of the QRS complex. The chemical deficit is shown by the fall of serum potassium levels below the normal of 4 to 5.5 m.e.

At the outset of treatment the typical patient with ketoacidosis shows, in addition to the lowered base reserve, the elevated blood sugar and nonprotein nitrogen, (1) lowered water volume in cells and plasma, (2) lowered value for soduim in cells, plasma and urine, and (3) normal level for potassium in cells and plasma.

After six to twelve hours of the treatment outlined, restoration to normal values is usually accomplished with the following exceptions: the water volume of the red blood cells is low; the level of serum potassium has fallen below that of the normal, and the level of serum chloride has risen above that of the normal.

Clinically the patient has recovered. Chemically the patient is still disturbed; therefore we wish to re-emphasize the importance of prolonged administration of fluid water by mouth or intravenously continued over a long period of time (days). The administration of potassium containing foods, beef broth, oatmeal, gruel, orange, milk should be aggressive. If the patient cannot retain fluid by mouth, 100 c.c. of a 2 per cent solution of potassium chloride solution may be given. This latter prescription should be controlled by chemical tests.

Infections

Cause and Prevention.—Specificity for the site of attack characterizes infections occurring in the diabetic. The sites commonly injured are the skin, bony structure, the urinary tract and the lung. Ketoacidosis increases the susceptibility of the lung to tuberculosis and of the urinary tract to pyogenic infections. The depletion of glycogen from the corium of the skin may increase the susceptibility of the diabetic to opportunist bacterial invaders. Thus it seems that good control of diabetes must be emphasized in the prevention of infections.

From the George F. Baker Clinic, New England Deaconess Hospital, Boston.

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, Detroit, September 21, 1950.

Treatment.—If skin infections occur, the antiseptic most commonly used is Chlorophyl. ST37 and other azochloramines are also favored.

The advent of chemotherapy, largely penicillin, has revolutionized the management of carbuncles, no longer a surgical disease. Osteomyeltitis of the toe, however, is still treated surgically with simple or transmetatarsal amputation.

Urinary Tract Infection: Minimal evidence of infection of the urinary tract is treated now with the same degree of seriousness as is minimal evidence of infection in the diabetic foot and for the same reason, the great chance of underlying vascular damage. If a clean specimen of the urine of a female patient reveals 10 white blood cells, or if a clean specimen of the urine of a male patient shows 5 white blood cells, a catheter specimen is obtained, cultured and appropriate chemotherapy or antibiotic therapy prescribed, namely, Gantrisin 4 grams daily for E. coli, streptococci (pyogenes and fecalis) and proteus; penicillin for streptococci, staphylococci and anerobes; streptomycin for E. coli; aureomycin or chloromycetin for staphylococcus.

Tuberculosis: The incidence of tuberculosis in diabetics remains high, and the death rate from it is still alarming. Prevention is sought by the avoidance of known contact and of ketoacidosis. Early diagnosis is sought through yearly roentgenray examination. Treatment for these patients remains radical lobectomy or pneumonectomy along with bed rest and antibiotics.

Neuropathies

Diabetic neuropathies are all too common. Any one or all of the following manifestations may be seen in the same patient along with an elevation of the total protein of the cerebrospinal fluid to a level of 60 mg. or above. The most common symptom is severe nocturnal pain with or without diminished or absent reflexes. Less common are nocturnal diarrhea, atony of the bladder and Argyll-Robertson pupil. Peripheral, central and autonomic nervous symptoms appear to be involved. The syndrome most responsive to therapy is nocturnal diarrhea, which appears to be controlled by the parenteral administration of crude liver extract. Recovery from peripheral neuritis can be guaranteed. Response to vitamin B therapy is usually slow. Palliative measures in the really severe cases include the intravenous administration of 1 per cent procaine solution or of sodium pentothal.

Vascular Lesions

That positive correlation exists between the inception of vascular disease and poor control of diabetes is our contention. We have never seen a case of vascular damage in a perfectly controlled diabetic. The site of vascular damage in the diabetic depends upon the decade of the onset of diabetes. In youth the eye and kidney are involved, in middle age the heart, in the elderly the extremities and the brain.

Gangrene

The transmetatarsal amputation for gangrene of one or more toes has replaced the supracondylar type of amputation. The failures in this type of surgery have amounted to hardly more than 15 per cent. The evaluation of the patient's response to conservative treatment has been on the basis of very simple clinical tests, the reaction of the patient to infection, the ability of the involved area to heal and to bleed, the temperature of the skin, the response of the veins to superficial venous pressure and the degree of dependent rubor.

So far as the circulatory aids are concerned, vasodilator drugs have not been in general use in our clinic. Buerger exercises and venous occlusion machines are used. Lumbar sympathectomy may be performed upon young diabetics with early signs of vascular deficiency.

Coronary Occlusion.—Coronary occlusion is treated early as in the nondiabetic with anticoagulants and later with decrease in activity and in body weight.

Retinopathy.—Just as peripheral vascular disease is the chief enemy of the older diabetic, retinopathy is the chief enemy of the young diabetic. The typical retinopathy of the disease diabetes seen in youth is the small round hemorrhage. Sclertotic changes in the arteries may or may not be present, but changes in the veins are almost universal. The veins become dilated and sacculated. Exudates, usually waxy in character, sometimes cotton-wool, too, are common. Vitreous hemorrhage is the dreaded and frequent accident for this leads to retinitis proliferans. Contraction of the scar which results brings about detachment of the retina and the capillary transudate to hem-

morrhagic glaucoma which may necessitate enucleation of the eye for pain.

Prevention of retinopathy is sought today through control of diabetes, diet high in protein and the correction of capillary fragility. The test for measuring capillary fragility which is commonly used at the Deaconess Hospital is as follows: The petechiae in an area 6 cm. in diameter which has been under 80 mm. of mercury pressure for four minutes are counted. All individuals having more than thirty-five are treated with rutin in doses of at least 300 mg. daily. All patients with normal capillary fragility but with retinopathy also receive rutin. Since hemorrhages and exudates are reversible, it has been difficult in the sort period of time to evaluate the results. The opinion of the internist rather than that of the ophtlamologist is an optimistic one, and all patients who have had diabetes for ten or more years receive therapy if indicated.

Nephropathy.—The second most frequent complication in young diabetics is nephritis. Three types of nephropathy are observed: pyelonephritis, arteriolar nephrosclerosis (intercapillary glomerulosclerosis), and necrotizing papillitis. Pyelonephritis and necrotizing papillitis respond to appropriate chemotherapy. Arteriolar nephrosclerosis may be handled according to the clinical phase seen. The clinical picture observed most frequently is one which resembles the nephrotic state of chronic glomerulonephritis in which the nonprotein nitrogen is normal, serum protein low. There is reversal of the AG ratio and proteinuria is excessive. During this period the patient may be treated with a diet high in protein, at least 2 grams per kilogram of body weight; mercurials may be used cautiously, ammonium chloride freely, and amphogel if the serum phosphorus is elevated. As the nonprotein nitrogen rises, the protein in the diet should be lowered to 50 grams a day and mercurials and ammonium chloride avoided. The more radical types of therapeutic handling of nephritis have not proved effective with our diabetics. Thus, splanchnicectomy, which was attempted on three young diabetics, precipitated three immediate fatalities. The artificial kidney was used on one of our patients whose status was moribund. Perfect chemical reversal was accomplished but the patient died. The rice diet has not resulted in permanent improvement.

In addition to these complications in the past, failures of growth and development and gross enlargement of the liver have characterized juvenile diabetes. Following more adequate treatment, the use of long-acting insulins and adequate dietary prescriptions, these two complications have disappeared. If growth failure occurs, it is still rare for the patient to respond to correction of diet alone, and thyroid, testosterone, or chorionic gonadotropin may be given to promote more rapid growth in retarded diabetic boys.

Brief mention of two complicating situations may be made here, namely, surgery and pregnancy in the diabetic.

General surgical procedures are carried on in the diabetic as in the nondiabetic, with preparation of the patient medically through parenteral fluids, vitamins and chemotherapy. The management of diabetes is stressed and, as with other individuals having surgical procedures today, early ambulation is the rule. Any anesthetic may be used.

Pregnancy in the Diabetic

Pregnancy in the diabetic requires special care. Maternal survival when pregnancy complicates diabetes is high but fetal survival has been low. Fetal survival is influenced by four different factors, namely, the control of diabetes, the occurrence of congenital anomalies, the degree of maternal vascular disease, and the imbalance of the sex hormones of pregnancy. The first and the fourth factors are correctible. The diet of the pregnant diabetic woman should be adequate in calories, 30 per kilogram of increasing body weight; high in carbohydrate, from 180 to 250 grams; high in protein, 2 grams per kilogram of body weight, and fat to complete the caloric prescription. In the past multiple doses of insulin, four or five a day, have been used in the obstetrical diabetic patient. In late pregnancy a single dose of NPH-50 insulin and one dose of rapidly acting insulin accomplish what four doses of insulin formerly accomplished.

The main part of our own management for the obstetrical diabetic patient concerns the prescription of estrogen usually combined with progesterone therapy. If estrogen is used alone, the patient receives ascending doses of stilbestrol as follows: up to the sixteenth week, 25 mg. daily; from the sixteenth to the twentieth week, 50 mg. daily; from the twentieth to the twenty-eighth week, 100 mg.; from the twenty-eighth to the thirty-second week, 150 mg.; and from the thirty-second week to

delivery, 200 mg., until the day of delivery. This treatment is supplemented, if the diabetes is severe and of long duration, by progesterone therapy and also by daily intramuscular stilbesterol instead of oral stilbesterol in the following doses: up to the twentieth week, 5 to 25 mg. of each; from the twentieth to the twenty-fourth, 10 to 50 mg. of each; from the twenty-fourth to the twenty-eighth, 15 to 75 mg.; from the twenty-eighth to the thirty-second, 25 to 100 mg. of each and from the thirty-second to delivery, 50 to 125 mg. of each. The clinical progress of the patient as well as chemical tests for chorionic gonadotropin and pregnandiol guides us in altering our hormonal therapy. Thus, if the patient shows signs of toxemia or has an excessive gain of weight without other signs of toxemia, the therapy is increased, or if the patient is on oral therapy, intramuscular therapy is substituted. The hormonal therapy is supplemented by large doses of ammonium chloride, by the restriction of sodium, and by a high protein diet. Timing of the delivery is considered essential. By the method of trial and error we have elected the beginning of the thirty-eighth week. When the cervix is not effaced at this time, cesarean section is performed. This is done under spinal anesthesia without preliminary medication. Ten per cent glucose is given preoperatively and in the afternoon of the day of surgery. The last dose of insulin (if long-acting insulins are used) is prescribed twenty-four hours before the delivery.

The care of the infant cannot be overemphasized for these sturdy-looking infants are potentially fragile and respiratory difficulties complicate the clinical course. Thus, they are drained posturally at birth. The upper air passages are aspirated every two hours for the first twelve hours. The stomach should be aspirated immediately at birth and every three hours for the first twelve. Continuous oxygen is used for a minimum of seventy-two hours. The infant is dehydrated by the postponement of oral and parenteral fluid for a period of forty-eight hours and stimulated to cry and turned frequently.

Of the four lethal complications of diabetes, coma, sepsis, tuberculosis and vascular disease, the first three have been controlled, leaving arteriosclerosis the chief enemy of the diabetic. Aggressive control of diabetes appears to be important in the program for its prevention.

CLINICAL USE OF THE NEWER ANTIBIOTIC AGENTS IN SURGERY

(Continued from Page 601)

to the clinician for the treatment of infections produced by these bacteria is indicated.

It is evident that two or more antibiotic agents are available for the treatment of many infections commonly seen in the practice of surgery. Pending receipt of susceptibility data, an antibiotic agent may be chosen for early treatment of acute or severe infections on the basis of a presumptive diagnosis. Since definite variation in susceptibility to the antibiotic agents may exist in the same strain, it is important to determine in the bacteriological laboratory the relative susceptibility of the infecting bacteria to the various antibiotic agents whenever possible. This is particularly true of infections which fail to show any sign of response within seventy-two hours after the onset of antibiotic therapy.

The development of acquired bacterial resistance has also been noted with chloromycetin, aureomycin, and terramycin, emphasizing the importance of using these antibiotic agents intelligently. Their administration without definite indication, without adequate dosage, or without properly timed and executed surgery if indicated should be avoided. Failure to drain abscesses before, at, or shortly after the onset of antibiotic therapy may permit the development of bacterial resistance and result in infections refractive to chemotherapy. It is not justifiable in our opinion to treat a patient conservatively with a chemotherapeutic agent and to postpone surgery when surgical treatment used in conjunction with antibiotic therapy will produce a more prompt, a safer, and a more satisfactory result.

The number of effective antibiotics is steadily increasing and from present indications it will continue to increase. To avoid haphazard therapy, it is strongly recommended that the clinican have available in local hospitals a good laboratory capable of giving readily and quickly information regarding the types of causative bacteria and their susceptibility to the various agents. A simple and effective method using small discs of filter paper impregnated with the various antibiotics is now available.

Clinical Significance of Hemoptysis

By Nathan Levitt, M.D.
Detroit, Michigan

THE OBJECT of this paper is the study of the incidence and significance of nontuberculous hemoptysis, occurring in a series of patients suffering from various types of diseases of the chest admitted to Harper Hospital from 1938 to 1948, inclusive, as well as a ten-year survey of patients with pulmonary tuberculosis admitted to the Detroit Tuberculosis Sanatorium from 1935 to 1945, inclusive.

The incidence of hemoptysis and clinical findings in this latter group of patients with tuberculosis was compared with the nontuberculous group admitted to Harper Hospital.

Patients suffering from hemoptysis as a result of traumatic chest injuries or pneumonia were not considered in this study.

Hemoptysis is rarely disregarded by the patient. He will consult a physician for this complaint before any other symptom that may manifest itself. We have seen patients give a history of a weight loss up to 75 pounds or more in short periods of time; others have endured severe pains, loss of energy, et cetera, for many months before seeking medical aid; but the moment a patient sees the presence of blood in the sputum he becomes greatly concerned and seeks medical advice.

It is a well-established fact that in a large proportion of cases, hemoptysis is caused by pulmonary tuberculosis either at the beginning or during the course of the disease. Nevertheless, it must be borne in mind that this symptom is not pathognomonic of pulmonary tuberculosis.

Due to the increasing use of the x-ray, bronchoscope, and bronchographic studies, as well as our greater knowledge of the bacteriology and pathology of the diseases of the chest, we have found that there are many other causes for pulmonary bleeding.

Wurtzen[24] reports that of 5,264 admissions to a sanatorium 869 cases were admitted because of hemoptysis, but only 582 proved to have tuberculosis. In the remaining 287 cases, pulmonary bleeding was due to cardiac disease, epistaxis, carcinoma of the lung, and pneumonia.

TABLE I

Diagnosis	No. of Patients
Pulmonary tuberculosis	1,380
Bronchiectasis	406
Rheumatic heart disease	350
Carcinoma of lung	258
Empyema	130
Lung Abscess	110
Atelectases of lung	61
Foreign body	58
Metastatic carcinoma of lung	54
Pneumonitis	48
Hemorrhage of unknown origin	34
Ulcer of bronchus	20
Cysts disease of lung	17
Fungus infection of lung	9
Dry bronchiectasis	4
Adenoma of lung	4
Mediastinitis	2
Lipoid pneumonia	1
Sarcoma of lung	1
Total Number of Patients	2,947

We surveyed a total of 2,947 cases; 1,380 of these were patients with pulmonary tuberculosis, and 1,567 had various other types of diseases of the chest (Table I). Of the entire group of these 2,947 patients 717 (24.3 per cent) gave a history of hemoptysis (Table II).

Pulmonary Tuberculosis

In our series of 1,380 patients with pulmonary tuberculosis, hemoptysis was complained of in 340 cases (24.6 per cent). This percentage figure compares favorably with Minor's study[14] of 1,000 sanatorium patients with tuberculosis, he observed pulmonary hemorrhage in 24.3 per cent of his cases.

In reviewing the histories of these patients with tuberculous hemoptysis, we still came across some cases of young people who gave a history of having felt perfectly well, when suddenly they had an urge to clear their throat, coughed, and blood appeared.

They were examined by their physicians and were told that the source of the bleeding arose somewhere in the mouth, nose, or throat, or at the root of the tongue, and upon being assured that their condition was not serious, and lulled into a state of false security, they returned to their jobs, only to break down again in a few months. Upon admission to the sanatorium they were found to be suffering from either a moderate or far advanced form of pulmonary tuberculosis.

Many observers[15-17] have pointed out, over and over again, how frequently the source of bleeding was attributed to a bleeding point in the naso-

From the Department of Internal Medicine, Harper Hospital, and the Detroit Tuberculosis Sanatorium, Detroit, Michigan.

Presented at Harper Hospital Staff Meeting, April 6, 1951.

TABLE II. INCIDENCE OF HEMOPTYSIS—PER DISEASE

Diagnosis	No. of Patients	Hemoptysis	Per cent
Pulmonary tuberculosis	1,380	340	24.6
Bronchiectasis	406	106	25.
Rheumatic heart disease	350	50	14.2
Carcinoma of lung	258	85	32.
Empyema	130	15	11.5
Lung abscess	110	39	35.
Atelectases of lung	61	2	3.2
Foreign body	58	5	8.
Metastatic carcinoma of lung	54	1	1.8
Pneumonitis	48	5	10.4
Ulcer of bronchus	20	20	100.
Cysts disease of lung	17	6	35.
Fungus infection of lung	9	2	22.
Dry bronchiectasis	4	4	100.
Bronchial adenoma	4	2	50.
Mediastinitis	2	1	50.
Total	2,911	683	23.4

pharynx in spite of the fact that hemorrhage in this area is very rare.

I agree wholeheartedly with Davidson[4] who states, "It is impossible to lay too much stress upon this error, or to emphasize too strongly the principle that the occurrence of definite hemoptysis in a young adult should invariably be regarded as evidence of tuberculosis unless it can definitely be shown to be due to some other cause."

Bronchogenic Carcinoma

There were 258 cases of proven bronchogenic carcinoma in our series, of which eighty-five patients (32 per cent) complained of hemoptysis. The following symptoms were found to occur in this order of frequency: cough, loss of weight, chest pains, hemoptysis, dyspnea, weakness, wheezing, and hoarseness. Although hemoptysis may occur as an early symptom in patients with bronchogenic carcinoma, we found this symptom to occur late in the disease in our group. Our findings bear out the contention of Jackson and Diamond[10] as to the relative rarity of hemoptysis as an initial symptom in bronchogenic carcinoma.

The occurrence of hemoptysis in an individual past middle age should always arouse the suspicion of the physician to the possibility of an existing bronchogenic carcinoma in his patient.

According to King,[11] bloody sputum which persists day after day for weeks is almost always from cancer and not from tuberculosis or other disease.

From our study of these 258 cases of proven bronchogenic carcinoma, we feel it advisable to repeat what we have said in a previous article on bronchogenic carcinoma[12]:

"That the majority of cases of lung cancer are diagnosed too late to do any radical surgery. Perhaps it is due to the fact that this disease masquerades under the disguise of the many commoner chest diseases, such as bronchitis, pneumonia, tuberculosis, pleurisy, et cetera, that we do not suspect the presence of a pulmonary neoplasm.

"Since pneumonectomy is only possible in the early cases, it follows that results will be in direct ratio to diagnosis. In other words, the earlier the diagnosis, the greater the chance for cure.

"A good general rule to detect the early cases of bronchogenic carcinoma is to keep it in mind in every case of pulmonary disease in people of the cancer age.

"We should use every modern method at our command, such as x-ray bronchoscopy, exploratory thoracotomy, and the examination of sputum and bronchial secretion for cancer cells by a reliable pathologist, in an attempt to establish the diagnosis."

Bronchiectasis

We had 406 cases of bronchiectasis in this series. Of these, 106 patients (25 per cent) complained of hemoptysis, ranging from blood-streaked sputum in some cases to severe hemorrhages necessitating blood transfusion in others.

Abbott[1] observed that 43.5 per cent of his group of 239 patients with bronchiectasis had hemoptysis. Vinson[20] compared the incidence of pulmonary hemorrhage in 100 cases of active tuberculosis, 100 cases of chronic bronchiectasis, and 100 cases of patients suffering from mitral stenosis with dyspnea on exertion and found the highest percentage of pulmonary hemorrhage occurred in those cases of chronic bronchiectasis.

In this group of 406 cases of bronchiectasis there were also present four cases of the so-called dry or hemorrhagic bronchiectasis, in which a sudden and profuse hemorrhage was the only symptom. However, on bronchographic examination, they were found to have dilated bronchi characteristic of bronchiectasis. These cases can easily be mistaken for tuberculosis, and a careful search for tubercle bacilli should always be made to exclude this disease. Six patients in our series suffering from bronchiectasis were admitted and treated for pulmonary tuberculosis in various sanatoriums for periods of time ranging from six months to two years before the diagnosis of bronchiectasis was made.

Metastatic Carcinoma

In our fifty-four cases of metastatic carcinoma of the lung (Table III), there was only one case of hemoptysis in this group (1.8 per cent). Carcinoma of the breast was the primary site in this instance. Farrell[5] reports a series of seventy-eight cases of pulmonary metastasis, in which six cases (7.6 per cent) gave a history of hemoptysis.

TABLE III. INCIDENCE OF LUNG METASTASIS

No. of Cases	Organ	Hemoptysis
29	Breast	1
3	Thyroid	0
3	Uterus	0
3	Cervix	0
3	Kidney	0
2	Rectum	0
2	Prostate	0
2	Bladder	0
2	Bone	0
2	Hypernephroma	0
1	Colon	0
1	Retroperitoneum sarcoma	0
53		1

Occasionally we may get hemoptysis from metastatic tumors of the lungs simulating primary bronchogenic carcinoma; two such cases are reported by Freedlander and Greenfield.[7] In both of their cases hemoptysis was the presenting symptom of bronchial invasion by metastatic growth which led to the erroneous preoperative diagnosis of bronchogenic carcinoma. They further emphasize the fact that patients in previously good health may have hemoptysis caused by metastatic pulmonary tumors, and these tumors may invade the bronchi so that bronchoscopic biopsy seems to confirm the erroneous diagnosis of primary bronchogenic carcinoma.

According to Fried,[8] hypernephroma is the tumor par excellence which "chooses" the wall of the bronchus. As a rule, hypernephroma produces spherical or round (cannonball) metastasis. We should also keep in mind the chorionepithelioma; these tumors are characterized by vaginal bleeding, chest pain and cough, and metastasize to the lung causing hemoptysis. Wilson[22] reports five cases of chorionepithelioma. In three of his cases there was extensive metastasis to the lungs and hemorrhage in one of the cases.

Bronchial Adenoma

There were four cases of adenoma of the bronchus. Hemoptysis was complained of in two cases. Hemoptysis is a prominent symptom in adenoma of the bronchus; it affects females more often than males. Adenomas as a rule occur in younger individuals, usually under fifty years of age in counterdistinction to carcinoma which is present in patients over fifty years of age.

In a series of 123 cases culled from the literature by Fried,[8] 109 affected persons were under fifty and only thirteen above that age. Jackson and Diamond[10] reported a series of eleven cases of adenoma of the bronchus with expectoration of blood in 100 per cent of the cases.

Many observers[2,9,13] claim that these tumors may become malignant and metastasize to distant organs and should be removed by lobectomy or pneumonectomy as soon as the diagnosis is made.

Phillip et al[18] describe four cases of adenoma of the bronchus. Two of the four showed malignant degeneration and metastasis, one to the brain and one to the spine. They state, "Although there may be some plausible debate as to the cell origin and growth rate, there is little doubt of the ultimate course of the tumor. Our cases, and cases reported by other surgeons previously cited in this paper, give convincing proof of the malignant nature of the so-called adenoma. One of us previously ascribed the term 'malignant adenoma' to this type of tumor. Now it appears that it may be prognostically sagacious to consider them carcinoma in general and accord them the serious respect given carcinoma of the lung."

Pulmonary Abscess

Our series consisted of 110 cases of lung abscesses. Putrid as well as nonputrid abscesses were included in this group. Thirty-nine patients (35 per cent) complained of hemoptysis. This symptom was more prominent in the chronic cases of lung abscess than in the acute ones. It should be emphasized that severe pulmonary hemorrhages are more apt to occur in cases suffering from putrid lung abscesses.

Hemoptysis can be a very serious complication in lung abscesses as demonstrated by Ray,[19] who reported a series of fifty-seven cases of putrid lung abscess. Pulmonary hemorrhage occurred in twenty-five (44 per cent) of the cases, and fatal hemorrhages resulted in seven cases (12 per cent).

In Diamond and Jackson's series[10] there were fifty-one cases of lung abscess, with three deaths from pulmonary hemorrhage, an incidence of 5.8 per cent.

Rheumatic Heart Disease

Of 350 cases of rheumatic heart disease which were surveyed in our series, fifty (14.2 per cent) gave a history of hemoptysis either before or during their stay at the hospital. The symptoms complained of in this group of fifty patients, in association with hemoptysis, were shortness of breath, palpitation, and precordial distress.

The abnormal findings in these fifty patients were as follows: mitral stenosis was present in all of the fifty cases, pulmonary infarction in fifteen patients, congestive heart failure in ten cases,

auricular fibrillation in fifteen cases, and extreme cardiac enlargement in sixteen of the patients.

The clinical course and progress was much poorer in these patients with hemoptysis than in the cases of rheumatic heart disease in which there was no bleeding.

Wolfe and Levine[23] reported a series of 521 patients suffering from rheumatic heart disease, with fifty cases of hemoptysis, an incidence of 9.5 per cent. They make the observation, with which we concur wholeheartedly, that hemoptysis in mitral stenosis with cardiac enlargement is a poor prognostic sign.

The mechanism of hemoptysis in these cases is explained by Wolfe and Levine[23] in this manner: "The occurrence of hemorrhage depends not only on the degree of congestion and the height of the pulmonary pressure, but also on the presence of sclerosed vessels which rupture under the strain of congestion and hypertension (pulmonary)." Ferguson et al[6] have shown that there are direct venous connections between the bronchial and pulmonary veins, and that mitral stenosis causes dilation of the bronchial veins in the submucosa of the larger bronchi, as a result of the establishment of a collateral flow through them. In cases of mitral stenosis in which infarction and acute pulmonary edema are not present, hemoptysis is probably due to bleeding from these dilated veins.

Vincent[20] reports the incidence of pulmonary hemorrhage in a group of 100 cases suffering from mitral stenosis with dyspnoea on exertion. Eighteen of this group had pulmonary hemorrhage. The hemorrhages were described as slight, or "streaks of blood only" in ten cases. In five cases it was moderate, in two it was severe, and in one very severe. Several hemorrhages occurred in the same patient in twelve cases. Hemorrhage followed exertion in seven cases. He further states, "Although pulmonary hemorrhage is absolutely and relatively less common in mitral stenosis than in pulmonary tuberculosis, it is common enough to warrant consideration in differential diagnosis."

Miscellaneous Conditions

Hemoptysis occurred in twenty patients in which the x-ray findings were entirely negative, but on bronchoscopic examination a bronchial ulcer was found in each of these cases apparently causing the bleeding.

We had nine cases of fungus infection of the lungs; two patients complained of pulmonary bleeding in this group.

Of 130 cases of chronic empyema studied, fifteen patients (11.5 per cent) complained of hemoptysis in association with their illness. This symptom was present at the onset of their original attack of pneumonia.

There were fifty-eight cases of foreign body in the tracheo-bronchial tree, of which five cases presented hemoptysis. Cystic disease of the lungs was present in seventeen patients; six of these complained of pulmonary hemorrhage. The diagnosis of nonspecific pneumonitis was made in forty-eight cases. Pulmonary bleeding occurred in 10.4 per cent of this group; and in sixty-one cases of pulmonary atelectasis, etiology undetermined, there were two instances of hemoptysis.

Hemoptysis of Unknown Origin

Thirty-four of our cases were labeled as hemoptysis of unknown origin. The only symptom present was that of pulmonary bleeding. Every diagnostic measure such as physical examination, x-ray, bronchoscopy, bronchography, and bacteriological examination of the bronchial secretions were negative. What is the cause of hemoptysis in these patients?

Many observers have offered various explanations. Wessler[21] has designated this condition as "benign" or essential hemoptysis to indicate its harmless character and also the fact that it is not associated with any gross pulmonary or bronchial disease. He further remarks that bleeding in these cases comes from the mucosa of one of the smaller bronchi, and that it results from the erosion of a very small vessel.

According to Myerson,[16] the bleeding is caused by an exposed blood vessel or vascular lesion in the wall of a peripheral bronchus. Referring to the etiology of hemoptysis of unknown origin, Diamond and Jackson[10] state, "It seems to us that the likelihood of existence of ulcerative lesions in the segmental bronchi and their branches merits serious consideration." They further assert, "Fortunately, the prognoses for life in these patients is excellent, for, although the hemorrhages are prone to recur over a period of many years, and at times may be so profuse that they cannot but occasion a good deal of alarm, experience has taught us that the likelihood of their resulting in the death of the patient is extremely small."

Abbott[1] prefers to call these cases "pulmonary bleeding, etiology undetermined." According to him they may represent bronchial ulceration distal

to the range of vision of the bronchoscope, small infarctions, pulmonary hypertension, blood dyscrasias in the stage of associated normal laboratory findings." We feel that these cases should be under supervision and check-ups made from time to time so that no serious lesion such as a bronchogenic carcinoma is missed.

Conclusion

Our study indicates that hemoptysis denotes serious pulmonary pathologies in the majority of patients. It cannot be emphasized too strongly the need for a complete and thorough study of these cases in order to establish a diagnosis. The examination should consist of a roentgenograph and bronchoscope examination of the chest, including bronchography whenever indicated. In patients of the middle age group with hemoptysis, the possibility of a bronchogenic carcinoma should always be thought of first, and in addition to the above diagnostic measures, we should include the study of the bronchial secretions for the presence of malignant cells.

Bronchoscopic examination should be done in every case of hemoptysis where the diagnosis is in doubt, with the exception of those cases where a definite disease entity is known to exist such as pulmonary tuberculosis, definite blood dyscrasies, or rheumatic heart disease.

From our study of the incidence and significance of hemoptysis in this series of cases we are in agreement with the observations of Andosca and Foley.[3] That the commonest causes of hemoptysis in adults between twenty and forty years of age, in order of frequency, are pulmonary tuberculosis, bronchiectasis, and mitral stenosis. In adults between the ages of forty and sixty the causes, in order of frequency, are bronchogenic carcinoma, pulmonary tuberculosis, and bronchiectasis.

Summary

A series of 2,947 cases of diseases of the chest was surveyed, of which 717 presented hemoptysis.

One group consisted of 1,380 cases of pulmonary tuberculosis, with an incidence of 24.6 per cent of hemoptysis. The other group consisted of 1,567 patients with various types of nontuberculous diseases of the chest, with an incidence of 24.5 per cent of hemoptysis.

The frequency of hemoptysis in various diseases of the chest, as presented, and the necessity of a follow-up in cases of hemoptysis of unknown origin were stressed.

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Ovarian Resection—Oviectomy—or Absolute Conservatism

By Herbert F. Traut, M.D.
San Francisco, California

THE REMOVAL of the human ovary goes back historically to a very considerable figure, to Ephraim McDowell, who intrepidly removed an ovarian tumor without adequate anesthesia and with little other than rugged human perseverance to supplement his efforts. That he was successful probably resulted from many preoperative considerations to which he paid diligent attention, but which are not recorded in his notes. The fact remains that he led the way toward popularizing an operation which has become so common that it is second only to appendectomy in the experience of the country at large, both lay and professional. Indeed, whereas 100 years ago McDowell's triumph was of historical magnitude, today the average surgeon who has occasion to enter the abdominal cavity feels a little sense of remorse if he has not at least inspected the ovaries, whereas the gall bladder, or more often the appendix, may have been the occasion of his right-sided interest and the real indication for opening the abdomen. And so it has come to be, that we have these right-sided abdominal surgeons—made more exclusively right-sided by our friend McBurney. And because we have a right-sided surgical community of opportunity, so we have right-sided advantages and disadvantages accruing to the community as a whole and our women in particular.

This, therefore, is the occasion of our discourse: why is it that the right-sided abdominal surgeon finds so much wrong with the right ovary, while the left ovary, which is so much less frequently exposed to the eye of the surgeon, seems to be relatively immune to all the things that happen on the right side?

You observe at once that we are dealing in *reductio ad absurdum*. This may be justifiable or not. We will leave you to judge. We feel that because general surgeons have frequent occasion to enter the abdomen, they should be well trained not only in gastrointestinal matters, but in those concerning the lower abdomen and pelvis of the female patient.

Furthermore, we feel that these same gentlemen who open the lower abdominal cavity should have some background of interest and sense of responsibility in female physiology and pathology. A very large proportion of them have neither. And, furthermore, they are insulated with an inheritance of indifference to the woman and her problems such that they have very slight regard for the physiologic importance of the female gonad. To many it is merely the female gonad which is only remotely as useful as the male analogue, and because it is infinitely inferior in importance, it need not have great consideration as to its preservation. And so we come to our common surgical attitude that the human ovary is an offending organism, and that it can only be wisely treated by constant supervision and frequent denudations of various sorts. Truly one should wonder that the human race did not begin to disappear with the advent of Ephraim McDowell. There must be something in paired appendages after all. But how much? That is the question, and I think we gynecologists who have an opportunity to see patients, say fifteen years after they have had an ovary or a portion of one removed, may have some important information. My own distinct impression is that these women patients so treated always have some demonstrable physiological handicap. They may do well for a long time, but most of them have a shortened reproductive period, and many have a premature climacteric syndrome. In other words, *one cannot remove an ovary or a portion of it without a very considerable chance of producing undesirable physiological effects somewhat later in life*. The general surgeon still does the bulk of the gynecological surgery in this country. It is well, therefore, for us to consider what the common experience in the country may be.

Ovarian Cysts

An inadequate understanding of the life cycle of ovarian cysts has led to much radical surgery in the treatment of them, and to an unfortunate attitude toward the conservation of ovarian function. The pathologist in the laboratory still is haunted by the twin specimens which comprise the commonest entry into his sanctum—that is the appendix in various degrees of pathological change, plus an ovary containing a small cyst, and not infrequently the cyst is a corpus luteum or at least a simple serous cyst. The surgeon removing an appendix

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, Detroit, September 21, 1950.

much too often sees a cyst of the ovary, and because he feels that it may be harmful or may become so, he takes it out by the easiest method, namely, removal of the entire ovary and cyst. The primary intention of the surgeon is most laudible in that he is trying to save his patient from future discomforts in so doing. The result, however, is that there are far too many women in these United States who, during appendectomy or because of some other indication for laparotomy, are deprived of an ovary and are trying to meet the normal, physiological demands of wifehood and motherhood with a decreased background of ovarian function. These women, in many instances, encounter serious difficulties. The thesis that one paired organ, such as the ovary or kidney, can do the work of two if need be is not true in the case of the ovary.

Of all the endocrine glands, the ovary seems to be the one having the least latitude and does not seem capable of maintaining a constant or greatly increased physiological activity over a long period of time. Thus when one ovary is removed, one has definitely decreased the ovarian function of the woman in amplitude, to a certain extent, but almost always in duration. This being true, it is obvious that we should always conserve ovarian tissue, particularly during the childbearing years, and as we shall see, afterward too. McBurney has unwittingly become one of the greatest benefactors of womankind because the incision which he popularized made the left ovary inaccessible to the surgeon doing an appendectomy. This organ has therefore remained outside his purview with its share of cysts, corpora lutea, et cetera. So it is, that the great majority of our women treated for appendectomy via the McBurney incision still have the left gonad intact; whereas those who have been given a rectus or midline incision may have not been so fortunate. Not infrequently both ovaries have been "pared for cysts," one or both removed, or occasionally due to "great concervatism" both ovaries have had resection of cystic bodies.

Not only general surgeons are responsible for the misconceptions concerning the reduction of ovarian tissue: radiologists have advocated the radiation of the ovary for all manner of conditions, more recently for malfunction and infertility. And still more recently, sincere gynecologists such as Stein and also Meaker have advocated the resection of a wedge of ovarian tissue "to improve ovarian function and balance." If those devoted to the special care and study of the gynecological sphere can advocate such crass procedures, no wonder the surgeon somewhat removed from responsibility can be excused. Actually, neither can be acquitted of violation of the woman's best interests by removal of ovarian tissue.

The other great difficulty of many operating surgeons is that they have not had an opportunity to become familiar with the true characteristics of ovarian cysts and, thus, to be able at the operating table to form a reasonable picture of the implications of this or that variety, and so to differentiate between those requiring complete and radical excision on the one hand and those which are benign and are better treated with great conservatism. The pity is that most of the ovarian cysts which accompany appendices to the pathologist are benign cysts—frequently corpora lutea or follicular cysts—which nature might have adequately supervised if given the chance. We must, therefore, make a plea for more complete pathological experience and training for our abdominal surgeons. With this in mind, let us consider the common ovarian cysts, including those which are benign and those which may have malignant implications.

The subject is really not a large one as far as common experience is concerned. If we were to include all the neoplasms of the ovary, we should need a very considerable space of time and facility. However, we can cover about 85 per cent of the problem if we consider four or five entities, and the subject can be further simplified if we remember that some of these are related one to another. It is amazing therefore that so much haphazard surgery should be caused by misconception. We wish to repeat that it is of the greatest importance, as far as gynecology is concerned, that our surgeons understand the life histories of these common ovarian neoplasms. Once this is achieved, we can anticipate a better result as regards the welfare of our women.

The background of the physician's and surgeon's concern about ovarian cysts is not difficult to understand. The dermoid cysts may become twisted on their pedicles—or simple serous cysts may be considered insignificant, whereas they may be serous cystadenomata of benign or malignant implications. Or a cyst may be of endometrial origin and thus give rise to progressive discomfort instead of being a corpus luteum or a graafian follicle cyst. And these are the sum total of the ordinary possibilities. It behooves us therefore to know these

entities exceedingly well, and thus we have the burden of our discourse clearly outlined.

Common Ovarian Cysts

Dermoid cysts may be confused with other moderate-sized ovarian cysts or tumors. But if we remember that they are seldom malignant, that they tend to float about the abdomen, and that about 70 per cent of them contain calcareous deposits which may be seen in the x-ray film, then we cannot only recognize them but we may have a clear idea of their potentialities for harm. The latter includes three considerations: (1) they may become twisted upon their pedicles, (2) they may gradually expand and destroy the ovary in which they arise due to pressure, and (3) they are about 20 per cent bilateral, so that if one is found in one ovary there is one chance in five that the other ovary will produce one sooner or later. This is a matter of some concern of course when we deal with young women desiring a family or in the early stages of acquiring one. Dermoids are easily recognized at the operating table and usually demand a unilateral oöphorectomy. However, occasionally one can resect a cyst and leave from one-half to one-third of an ovary. This is a most worthwhile procedure, even when the opposite ovary is normal.

Inflammatory cysts are easily recognized because of their location between contiguous layers of peritoneum and because of the adhesions which usually surround them. Radical surgery is rarely justified in the treatment of inflammatory cysts. The surgeon may be quite unhappy after opening an abdomen, thinking of other more serious entities, and then discover that his patient has simple inflammatory cysts. It takes not only a knowledge that these structures are not harmful in the long run, but also the greatest courage of one's convictions to close the abdomen without the removal of tubal or ovarian structures. This is, however, all that is indicated in the great majority of instances of this kind.

The serous cysts however, provide a more formidable consideration, first as to whether they are simple serous cysts or cystadenomata, and if the latter, whether they are malignant, and if so, whether unilateral or bilateral. Simple serous cysts are small, often unilocular, thin walled, contain watery straw-colored fluid and no papillary processes. After resecting a small cyst from the ovary, the surgeon can open or have his pathologist open the cyst for his inspection. Usually papillary processes of any malignant importance are easily visible to the unaided eye. So it is possible to almost at once differentiate between benign and possibly malignant cysts. It is the grossly papillary cystadenomata which we all fear that justifies radicalism. For we cannot cure cancer of the papillary serous variety. We know it always arises in benign serous cystadenoma, and furthermore we also know that it is frequently bilateral. This group of ovarian tumors constitutes the only real justification the surgeon has for extreme radicalism in the treatment of ovarian disease. It is of paramount importance, therefore, that he be acquainted with the disease so that he can differentiate it from others which may simulate it. The details of diagnosis we shall consider later.

The greatest, single stimulus for ovarian removal comes to the surgeon when he is confronted by what he thinks to be an endometrial cyst. "Chocolate cyst" is the old name for it. It grows indefinitely in response to ovarian or estrin therapy stimuli, producing extensive and very dense adhesions, associated with pain, particularly before and during the menstrual period. It is the pain and the presence of an abdominal mass which induces the surgeon to open the abdomen in this instance, and in the presence of these indications he will usually not be far wrong in so doing. However, it is not these findings which do the greatest harm concerned with this entity. It is the fear of it in the surgeon's mind, so that when the abdomen is opened for some other reason, such as an appendectomy, and an ovarian cyst with dark coloration is found, the doctor is induced to remove the ovary or a large portion of it. He does not realize that in the absence of symptoms a corpus luteum cyst or a hemorrhagic graafian follicle may be much more likely, and may very closely resemble the endometrial cyst in appearance, and that the corpus luteum cyst and graafian follicle cyst are essentially nearly normal physiological bodies which nature can heal very well indeed. On the other hand, the endometrial cyst never becomes malignant, and one can always afford to palliate it. In addition the androgens have been found to be quite efficacious in holding these growths in abeyance, and even in causing definite retrogression. So the similarity between endometrial cysts and other ovarian cysts, principally those of corpus luteum origin, cause the greatest loss of ovarian tissue at the operating table, far more than those associated with malignant disease.

When one realizes that many of these losses occur in relatively young women, many of whom have not had a chance to establish a home and a family, then the true implications assume tragic proportions. Certainly this is an area in which the abdominal surgeon should be so well tutored as to not commit this blunder, and yet today, I must repeat, this syndrome constitutes the background responsible for the removal of more normal or slightly pathological ovaries than any other. That it is unnecessary is all the more reason for calling it to the attention of the profession. We have been told about it in various ways and yet we have somehow escaped the realization of its meaning.

Preoperative Diagnosis

Benign cysts, such as graafian follicle cysts, corpus luteum cysts, simple serous cysts and endometrial cysts are usually small. They grow slowly or regress and seldom exceed more than 5 or 6 cm. in diameter. Because they often regress we can usually well afford to watch small ovarian cysts in patients who are co-operative and who will return for examination from time to time.

The dermoid cyst carries more sinister implications because it does not regress; furthermore it may cause an acute episode by becoming twisted upon its pedicle, and in addition, about a fifth of them are bilateral. Hence if they tend to float up into the anterior abdomen when the patient is lying on her back, and if they show calcareous shadows in the x-ray plate, then they had better be removed in as conservative a manner as possible.

If a small cyst of the ovary is associated with shotty nodules in the cul-de-sac, one should promptly think of the possibility of papillary tumors or of endometriosis. The latter will often be associated with progressive dysmenorrhea whereas the former is usually quite asymptomatic. Either entity is worthy of a laparotomy in my opinion. Under these circumstances it will be extraordinarily seldom for one to find a benign functional cyst such as those associated with the graafian follicle or the corpus luteum. One usually has to decide between dermoids, cystadenomata, endometriosis and inflammatory inclusion cysts.

The great classical carcinoma of the ovary, of course, has its background in the serous papillary cystadenomata; because they are frequently bilateral, and because we cannot cure them once they become malignant, these tumors constitute the only common indication for radical ovarian removal. When found, they should be taken out completely, and even normal-looking ovarian tissue should be removed because of the tendency to bilateral involvement. Recognition at the operating table is therefore most important. Usually one sees papillary processes on the surface of the ovarian tumor or upon the peritoneum.

Sometimes, however, even large cystadenomata give no gross indication of their character. Then the character of the cystic fluid becomes important. In evacuating the cyst the rubber glove can easily be moistened with a little of the cystic fluid. If it is mucoid or semi-slimy, then one need not usually worry because the pseudomucinous cystadenomata are so infrequently malignant as compared to the serous variety that one can usually afford to be somewhat conservative in the treatment of them. On the other hand, if the large multilocular cyst contains straw-colored or bloody fluid which does not feel slimy, one should be quite radical.

On almost all other occasions one should be imbued with the need for conservatism. Small ovarian cysts and tumors may often be resected so as to leave a portion of the ovary and its blood supply intact.

Endometriosis may form an exception, and this benign lesion is almost the only exception to the above rule. This is particularly true in young women. Hence one should temporize as far as possible in order to preserve the childbearing function. In those over thirty-five or forty years of age who have had symptoms, particularly if the growth has involved bowel or ureteral structures, one may be quite justified in being radical with the surgical approach. However, in these days of potent androgen therapy, we have often found that surgery could be obviated in part or completely by adequate dosage of androgens by mouth.

What we have said is the essence of the matter. We are well aware that having read this dissertation no surgeon will learn much unless he has imbued in himself the desire to sound the depths of this over-simplified presentation. Our effort therefore is first to present the bald truth as regards present practice in the matter of treating these ovarian conditions, and second to encourage all surgeons by presenting a brief outline of the essentials which will assist them in treating the great majority of their ovarian cyst cases well. It will remain for experience, reflection and study of the literature to make all of us truly wise and humane in our gynecological practice.

Recognition and Treatment of Vitamin D Resistant Rickets

By George H. Lowrey, M.D., and
John F. Holt, M.D.
Ann Arbor, Michigan

ALTHOUGH refractory or vitamin D resistant rickets has been considered a rare disease up to the present time, recent observations at the University Hospital have made us acutely aware of the fact that it is not as uncommon as the literature would indicate. Over a period of about fifteen years we have seen seven children in which the diagnosis of refractory rickets was made. McCune[5] has observed ten patients with this form of rickets at the Babies Hospital, New York City, and states that up to 1949 only thirty cases have been reported in the world medical literature. Undoubtedly many examples of the disease remain unrecognized, and as a result these children are often subjected to needless or ineffectual orthopedic operations. As an aid to earlier recognition and better treatment of the condition this report is made.

The outstanding clinical features of vitamin D resistant rickets are the appearance of signs of the disease late during the first year or the second year of life. In spite of usually effective doses of vitamin D the changes in the bone progress and persist into childhood, resulting in skeletal deformities of considerable severity. Bowing of the legs, coxa vara, knock-knees and "saber shin" are more common and of a greater degree in most cases of refractory rickets than in ordinary or infantile rickets. Fractures of the green-stick variety are frequent and angular deformities of the upper extremities may be present. These children have often been diagnosed as representing one of the chondrodystrophies because of the persistence of the changes and the resulting dwarfism (Fig. 1).

Many patients (including five of our seven cases) are subjected to corrective osteotomy before the pathogenesis of the disorder is recognized.



Fig. 1. Patient I. D., a six-year-old girl (right) with refractory rickets, shown with her sister, aged four (left). Diagnosis of active rickets was made three years earlier but retracted when child failed to respond to usual antirachitic measures. Note pronounced dwarfism, protuberant abdomen and bowing of femurs. Tibias have been straightened temporarily by osteotomies. Although patient was discharged in 1942 as an example of Morquio's disease (atypical chondrodystrophy), review of her record indicates that she is an unquestionable example of refractory rickets.

This is one of the tragic complications of this disease. Although the immediate results of such procedures may appear to be satisfactory, the deformities soon recur because the relatively soft bone will not hold its corrected position. Only after adequate therapy and normal mineralization of the skeleton are operative remedies indicated.

Blood chemistry findings are typical in refractory rickets. The serum calcium is normal (9 to 11 mg. per cent), the serum phosphorus is invariably lower than normal for children, often being in a range of 2 to 3.5 mg. per cent. In contrast to ordinary rickets, even huge doses of vitamin D usually do not cause a rise of the phosphorus to normal levels

From the Department of Pediatrics and Communicable Diseases and the Department of Roentgenology, University Hospital, University of Michigan, Ann Arbor, Michigan.

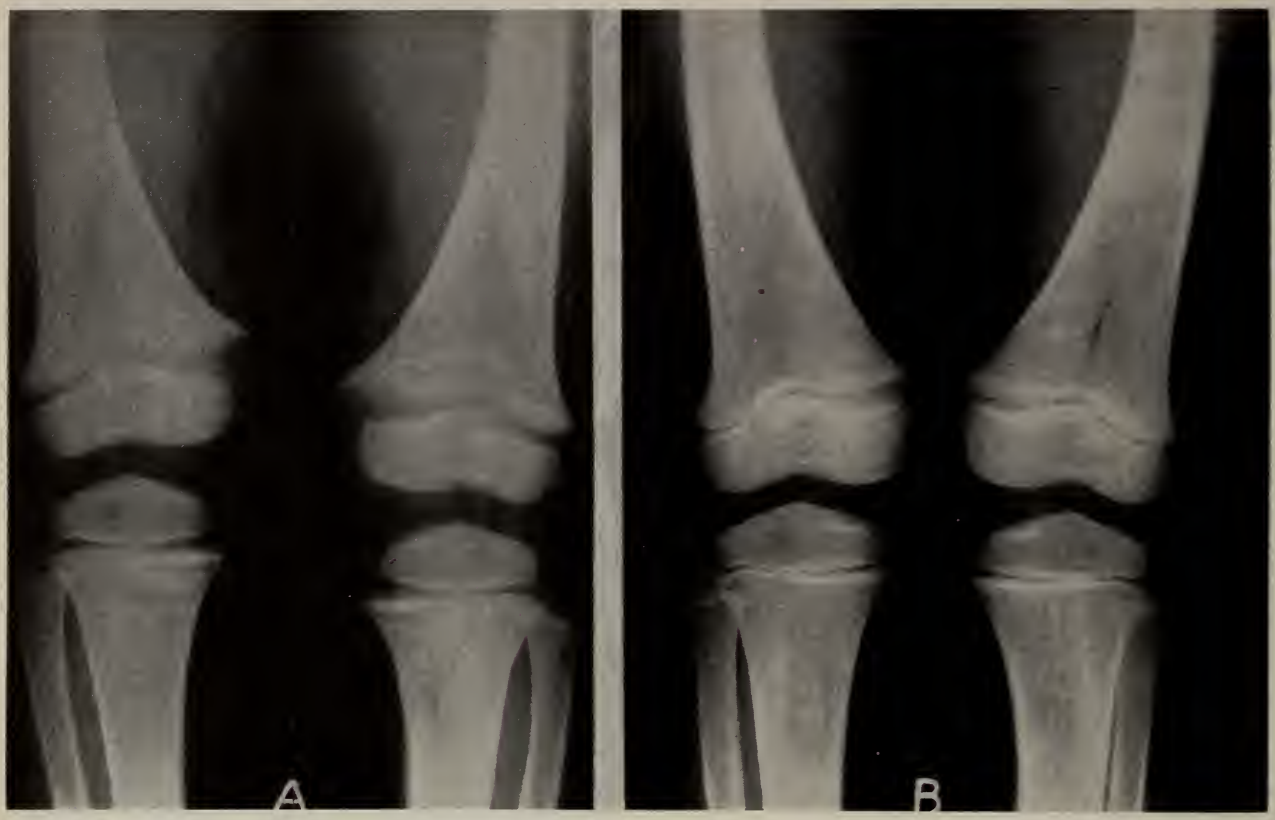


Fig. 2. Patient C. B., a four-year-old girl, was first seen in February, 1949, with history of bow legs and waddling gait since the age of ten months. Dietary history indicated seemingly adequate vitamin D intake. Physical examination showed dwarfism, extreme bow leg deformity, pot belly and accentuated lumbar lordosis. Routine urine and blood examinations were negative. Serum calcium was 10.9 mg. per cent; serum phosphorus 2.5 mg. per cent; serum alkaline phosphotase 19.2 Bodansky units. Blood urea nitrogen was 13.5 mg. and a urine concentration test in fourteen hours showed specific gravity of 1.030. Metabolic balance studies showed the patient to be in negative calcium balance.

X-rays of tubular bones on February 25, 1949 (A) showed typical signs of active rickets (see text). She was given intensive vitamin D therapy (February 25 to March 24, 1949, 15,000 units daily; March 24 to May 28, 1949, 50,000 units daily; May 28, 1949, to June 1, 1950, 150,000 units daily with occasional interruptions).

Roentgenograms on June 3, 1950 (B) showed apparently complete healing of patient's rickets. Numerous interval films had demonstrated only partial regression of the rachitic process.

during or after complete healing has taken place.[3] The blood alkaline phosphatase level is always elevated and has been observed to exceed 30 Bodansky units.[2] Other chemical values of the blood are normal.

Further studies on these patients show a consistent negative calcium and phosphorus balance until unusually large amounts of vitamin D are ingested. In one of our patients positive balance was not obtained until 500,000 units of vitamin D daily were taken. When healing has been complete, the dosage necessary to prevent relapse may be reduced to about one-half of that originally given.

The exact etiology of this condition remains unknown. Decreased urinary calcium excretion is not as prominent a feature as it is in ordinary rickets. There is, however, decreased absorption of calcium and phosphorus from the intestinal tract, and this continues in the presence of usually adequate vitamin D, or when the intestinal tract is made more acid which should favor absorption of calcium.[6] The relatively frequent occurrence of the disease in more than one member of a family has been observed by others[2,3] and in two children of our series. This would indicate that in some instances the metabolic error is an hereditary one.

Diagnosis depends upon a combination of several factors. As previously indicated, the earliest clinical signs are not unlike ordinary rachitic changes. The fact that they become progressive in the presence of the usual antirachitic therapy should make one suspicious. Ordinary rickets has a great tendency to heal following infancy and during early childhood as growth slows down. This is not true in refractory rickets. Deformities, often most pronounced in the lower extremities,

become extreme and lead to dwarfism of a moderate or marked degree. No other signs or symptoms are present. Appetite, activity, and mental alertness remain as usual. Occasionally vague pains of the joints are complained of and are proportionate to the degree of deformity.

Roentgenologically, vitamin D resistant rickets has much the same appearance as other types of rickets (Fig. 2). There is generalized rarefaction and coarsening of the trabecular pattern of various bones, irregular fraying of the epiphyseal plates, cupping of the ends of the shaft, and widening of the space between the epiphyseal ossification centers and the shaft. Secondary deformities such as bowing and fractures are often more profound than in ordinary rickets, probably because the age of the patient is more advanced and weight bearing has been more prolonged. It has also been our experience that rachitic changes are observed in relatively unusual locations in the refractory variety such as angles of the scapulas, the elbow and ischiopubic synchondroses. The long bones may appear short and broad as in chondrodystrophy. Finally, the lamina dura around the teeth is either absent or poorly delineated. Although the roentgenologist cannot make a definitive diagnosis of refractory rickets, he should suspect it in any patient past the age of two or three years who has roentgenologic signs of active rickets. A more detailed description of the roentgenologic findings has been published elsewhere.[4]

The typical laboratory findings have been enumerated. These will not rule out the diagnosis of ordinary rickets until the usual vitamin D therapy has been carried out for some time and it is recognized that the abnormal values persist. The exclusion of diseases of the kidney, liver, pancreas and intestines, all of which may produce a similar roentgenologic picture, can be made by proper clinical and laboratory investigation. Renal rickets[1,2] is accompanied by elevated blood levels of nitrogenous products and phosphorus. The findings of chronic acidosis are invariably present. Albuminuria, low specific gravity of the urine and sometimes cells and casts are the usual findings in this condition. Pancreatic and hepatic insufficiency are usually self-evident from clinical observation alone and need not cause confusion. The same is true of intestinal abnormalities as in the celiac syndrome.

In atypical chrondrodystrophy true rachitic changes at the epiphyseal-metaphyseal junctions are absent. The osteoporosis is minimal or absent and the normal blood chemistry should suffice to identify this condition. Nevertheless, it should be pointed out that this was probably the most common mistaken diagnosis made in our hospital and in other clinics until the true nature of the disorder was elucidated.

Rarely osteogenesis imperfecta may be confused with vitamin D resistant rickets. Careful study of roentgenograms and blood chemistry studies in osteogenesis imperfecta (normal values are found for calcium, phosphorus and phosphatase) should establish the correct diagnosis.

Primary hyperparathyroidism is rare in infancy and childhood but may occasionally offer difficulty in differential diagnosis in adolescence. Recognition of cystic areas in bone, hypercalcemia and hypercalcinuria are most valuable in making the diagnosis. A low serum phosphorus and elevated serum alkaline phosphatase are present in both this condition and refractory rickets.

The therapy of refractory rickets is not as simple as one might suspect from the foregoing discussion. Two factors complicate effective treatment. One is to find the effective dose of vitamin D, which may be from 50,000 to over 500,000 units daily. The other is that the use of large doses of the vitamin is not without hazard.

The ideal method of estimating the proper dosage is to carry out balance studies while the patient is on varying amounts of the vitamin. This, however, requires prolonged hospitalization and a laboratory to carry out the determinations. The most practical method at present would appear to be as follows: the patient is begun on 50,000 units of vitamin D daily for a period of three to four weeks with careful observation for the toxic symptoms of hypervitaminosis which will be outlined. Roentgenologic studies of the ends of the long bones are then obtained to evaluate the presence or absence of healing (Fig. 2B). If healing is taking place, the same dose is continued. If no evidence of healing appears, the dose is increased another 50,000 units daily for three weeks and roentgenologic observations are repeated. In this way, over a sufficient period of time, the correct amount of the therapeutic agent can be ascertained.

During therapy the urine should be examined twice weekly. This examination should consist of specific gravity determinations, microscopic

analysis and the reaction with Sulkowitch's reagent. A consistently low specific gravity is a danger sign of toxicity and is often accompanied by the signs of polyuria. The appearance of granular casts which stain with silver nitrate (calcium casts) indicates that treatment should be temporarily discontinued. The reaction with Sulkowitch's reagent (equal volumes of urine and a solution made up as follows: oxalic acid 2.5 grams, ammonium oxalate 2.5 grams, glacial acetic acid 5.0 c.c. and distilled water q. s. ad 150 c.c.) should normally show a faint cloudiness.[1] When the test shows a heavy milky density, it indicates marked hypercalcinuria and indicates hypervitaminosis of a dangerous degree. Occasional determinations of blood calcium, phosphorus and phosphatase should be carried out. A calcium level above 11 mg. per cent requires reduction of the vitamin dose. With healing the phosphatase level will become lower and may attain normal levels when complete healing has occurred. The phosphorus level will remain low.

When healing is complete, or nearly so, the vitamin D may be reduced to about one-half the initial effective amount. The patient should continue under close observation during this period also. The actual duration of therapy with the high initial dose may vary from over a year to less than six months. Maintenance therapy must continue until bone growth ceases and it may be necessary in some cases to continue treatment into adult life to prevent osteomalacia. In some children the disorder stops at puberty, and it was observed in one of our cases that at this time blood chemistry findings became relatively normal.

The toxic symptoms of overdosage with vitamin D are often insidious in onset, and all of these patients deserve careful observation as outlined above. It has become apparent to us that the difference between a toxic dose and a curative dose is not very great. Beginning toxicity is most frequently manifested by anorexia, and this is soon followed by nausea, vomiting and occasionally abdominal discomfort or pain. An increased intake of water and polyuria may result and is reflected in a low urinary specific gravity. Late and dangerous signs of hypervitaminosis D are uremia and metastatic calcification of the soft tissues, especially the kidneys. Most of these changes are reversible if recognized soon enough and their prevention is dependent upon close observation.

Only after the rickets has completely healed should orthopedic procedures be carried out. If the subject is young the deformities may in some measure correct themselves. One should also be cognizant of the fact that immobilization, as after an operation or while wearing a cast, will result in reduction of the required amount of vitamin D. During these times it is especially necessary to follow the patient carefully to avoid hypervitaminosis and resulting toxicity on one hand, and to prevent relapse of the rickets through too drastic a reduction of the vitamin on the other hand.

Summary

Refractory or vitamin D resistant rickets is an uncommon but not extremely rare metabolic disorder in children. It is characterized by progressive rachitic deformities at an age when ordinary rickets has healed or is healing. It is usually on the basis of roentgenographic signs that rickets is first considered as the probable diagnosis. Physicians who are unaware of this type of late rickets are apt to disregard the roentgenologic diagnosis because of the age of the subject and frequently the history of what would ordinarily be considered an adequate intake of vitamin D. Consequently many of these children are subjected to expensive and prolonged surgical procedures which are bound to be ill-fated because of the active rachitic process.

The importance of recognizing this entity is stressed and the method for proper treatment is carefully outlined. The importance of close observation of the patient throughout the entire growing period is emphasized, and the dangers of vitamin D intoxication are discussed in connection with proper therapy.

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Histoplasmin and Old Tuberculin Reactors in Kent County, Michigan

By H. D. Ireland, M.D.
Grand Rapids, Michigan

GROWING interest in the geographical distribution of positive histoplasmin skin tests lends importance to the findings in any particular section. Kelly and Woodruff, using 0.1 ml. of 1:1000 dilution of histoplasmin, found 11.5 per cent positive reactors among 471 sanatorium patients in the Detroit area. Dickey and Clark, using the same dilution, found 11.5 per cent positive reactors among 381 students who were life-time residents of Wisconsin. The County Tuberculosis Clinic staff undertook the following study to estimate the percentage of tuberculin and histoplasmin reactors in Kent County, Michigan.

Beginning April 1, 1950, and continuing to September 1, 1950, each person making his first visit to the County Tuberculosis Clinic was given old tuberculin 0.1 mg. intradermally in the volar surface of the left forearm. Histoplasmin, 0.1 ml., was similarly given in the corresponding surface of the right arm. The materials were obtained through the Western Michigan Branch of the Michigan Department of Health Laboratories; the histoplasmin originated in the laboratory of Dr. Arden Howell, Jr., United States Public Health Service, Division of Tuberculosis. Both skin tests were read in the usual manner after forty-eight to seventy-two hours, an area of induration 0.5 cm. or more in diameter was interpreted as positive. Those individuals above the age of twelve years were routinely given stereo 4 x 5 photofluorograms of the chest on the first visit. Children under twelve years of age were not x-rayed unless the tuberculin and/or histoplasmin were positive. The chest films were interpreted independently by two members of the Sunshine Sanatorium medical staff. The recorded interpretations were accepted by the two.

One thousand forty-three consecutive persons making their initial clinic visit were so examined. Ages ranged from nine months to eighty-seven years (Fig. 1). The percentage of positive and negative old tuberculin reactors cannot be accepted as accurately representing the general population of the community, since the group contains a disproportionately high number of known tuberculosis contacts. Thirty-seven per cent of the

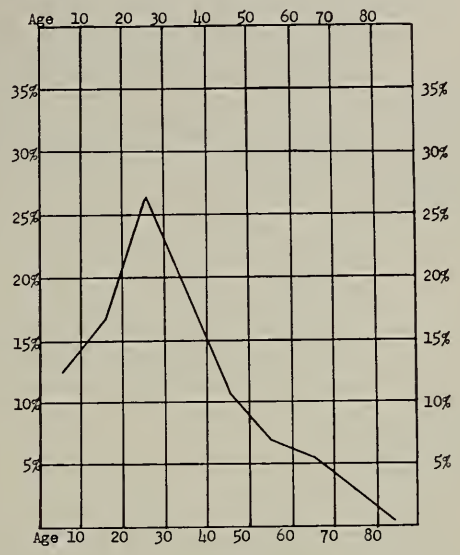


Fig. 1. Age groups attending clinic.

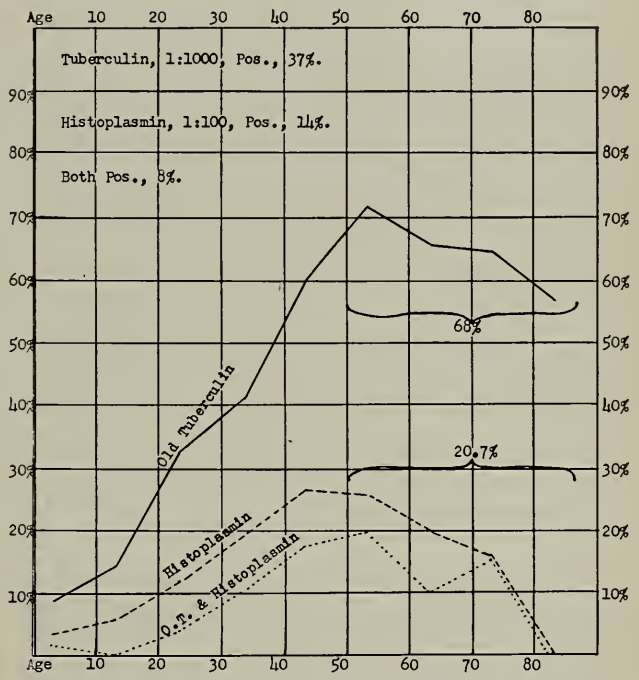


Fig. 2. 1,043 consecutive tuberculin and histoplasmin tests.

1,043 people examined reacted to tuberculin (Fig. 2). Fourteen per cent reacted to histoplasmin. Eight per cent were positive to both. Twenty-nine per cent were tuberculin positive, histoplasmin negative. Six per cent were tuberculin negative and histoplasmin positive. Fifty-seven per cent were negative to both.

X-ray findings, correlated with the skin test

TABLE I. X-RAY FINDINGS IN RELATION TO SKIN TESTS.

X-ray Interpretation	Skin Tests with Tuberculin and Histoplasmin				
	T Neg. H Neg.	T Pos. H Pos.	T Pos. H Neg.	T Neg. H Pos.	Total
No x-ray	131				131
Clear	312(30%)	19(1.8%)	133(12.7%)	24(2.3%)	488
Hilar calcium	88(8.4%)	21(2%)	62(6%)	16(1.5%)	187
Hilar adenopathy	1*	1	3***	1	6
Parenchymal calcium	2	4	0	0	6
Parenchymal and hilar calcium	16(1.5%)	17(1.6%)	39(3.7%)	10(.9%)	82
Parenchymal scar	19(1.8%)	13(1.2%)	39(3.7%)	11(1%)	82
Chronic pneumonitis, probable bronchiectasis	8	0	4	0	12
Acute pneumonitis	5	3	6	1	15
Pleural scar	6	3	7	0	16
Cardiac	2	0	2	0	4
Pulmonary tuberculosis, active	0	3	4	0	7
Tumor mass	2	0	1	0	3
Miscellaneous	3**	0	1****	0	4
Total	595(57%)	84(8%)	301(28.8%)	63(6.2%)	1,043

*Boeck's sarcoid
**2 Spontaneous pneumothorax
1 Pleural effusion
***1 Hodgkins disease
****Diaphragmatic hernia

results, are summarized in Table I. It is interesting to note that eighty-eight (8.4 per cent) individuals reacting to neither antigen in the dosage given showed hilar calcium deposits. Care was taken not to record blood vessel shadows as representing hilar or parenchymal calcifications. Sixteen (1.5 per cent) reacting to neither antigen showed both parenchymal and hilar deposits. Two x-rays showed parenchymal calcifications only. No attempt was made to count or measure the extent of calcium deposition. However, we were of the impression that both parenchymal and hilar calcification was more extensive in those reacting to histoplasmin only, as compared to those reacting only to tuberculin.

Definite hilar lymphadenopathy was noted six times. Three cases were clearly active primary tuberculosis. One proved to be Boeck's sarcoid, one Hodgkin's disease, and one failed to return for complete study.

Evidence of parenchymal fibrosis was noted in eighty-two individuals. An additional twelve were reported as chronic pneumonitis (probably on a bronchiectatic basis). Seven other cases proved to be active reinfection tuberculosis and are listed separately. Nineteen (1.8 per cent) of the eighty-two individuals did not react to either antigen. Thirty-nine (3.7 per cent) of the eighty-two were tuberculin positive, histoplasmin negative.

Evidence of acute pneumonitis was noted fifteen times. Four cases were histoplasmin positive. These were referred back to their private physicians and complete clinical information is not available.

During the first two months of study the patients were asked in what other states and countries they had resided. It was soon evident that these records would have little significance. Of the first 350 so queried, 34 per cent reported having lived in two or more states other than Michigan. An additional 40 per cent reported having lived in one other state, Canada (five) or Europe (sixteen). Twenty-six states were named. The midwestern states predominated, although California, Washington, Utah, Mississippi and Florida were included. Twenty-five per cent stated they had always lived in Michigan. However, it was clear that the majority had spent weeks of vacations in other sections of the country. It was noted that 13 per cent of the histoplasmin-positive individuals reported continuous residence in Michigan, as opposed to 31 per cent of the histoplasmin-negative group. Two of four histoplasmin-positive children under the age of ten years had definitely not been outside of Michigan. It was fairly certain that six of eleven histoplasmin reactors between ten and twenty years and two of twenty-nine between twenty and thirty years had not been outside the state.

Summary

Of one thousand forty-three consecutive persons making their initial tuberculosis clinic visits, 57 per cent were negative to both old tuberculin and histoplasmin, 37 per cent reacted with tuberculin and 14 per cent with histoplasmin. The skin test results were correlated with x-ray findings. It is certain that some of the positive histoplasmin reactors had never been outside the State of Michigan.

Acknowledgment

I am indebted to Drs. Pearl Kendrick and Grace Eldering of the Michigan Public Health Laboratories for their criticisms and suggestions.

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Sunshine Sanatorium

Report of the Committee on Maternal Deaths

Illustrative Case Report

The patient was a white woman, aged 30, Gravida 2, Para 1.

Medical and surgical history were irrelevant excepting for chronic bronchial asthma. Prenatal care commenced during the second month of pregnancy, with sixteen prenatal visits to her physician.

There was a gain of 23 pounds with maximum weight 138 pounds. Blood pressure was normal. Urine and blood examinations were negative. Blood type O Rh positive. No complications were reported during pregnancy.

X-ray findings at term were interpreted by the roentgenologist to be normal.

The first stage of labor lasted seven hours with complete dilatation. The patient was delivered by outlet forceps. Some cyanosis was observed during the first stage of labor. There was moderate to excessive postpartum hemorrhage. Episiotomy was repaired under drip ether administered by the nurse.

During the first stage of labor, 100 mg. Demerol was administered hypodermatically.

Ergotrate Gr. 1/300 given with delivery of shoulders; 1 c.c. pituitrin immediately after third stage; 200 c.c. whole blood after delivery. Oxygen was administered.

Symptoms of pulmonary embolism appeared immediately after delivery. Sterile vaginal examination was made to rule out fundus or cervical laceration.

A living child was delivered weighing 6 pounds eleven ounces.

Cyanosis continued.

Attending Physician's Summary

The following is a résumé of the labor, delivery and post-partum course of this patient.

She was admitted in active labor and was seen by me immediately after admission. Her labor was rapid with fairly hard contractions. Demerol was given shortly after admission. During her entire labor she was markedly agitated, requiring attention throughout. During this time she appeared somewhat cyanotic which I attributed to her intense straining at all times. When she was completely dilated, she was taken to the delivery room and prepared for delivery. I had anticipated a spinal anesthetic, but because of her complete lack of co-operation, this was impossible. Drip ether anesthesia was given and was taken very poorly. Because of the poor response to the anesthetic, I quickly did an episiotomy and forceps outlet delivery while she was still straining somewhat. Immediately after the delivery the anesthetic was stopped, episiotomy repaired and by the time the repair was finished, she was awake. The placenta delivered spontaneously in six minutes, followed by moderately excessive bleeding which was controlled by massage of the fundus and Pituitrin intramuscularly. At this time her pulse was 120, but of good quality, but it was noted that she was quite cyanotic. The estimated amount of bleeding was about 300 c.c. She was returned to her room and visited with her husband for five or ten minutes. During this time, I had gone directly to the other delivery room. In about ten minutes I was notified that her pulse was almost imperceptible and she was extremely cyanotic. She was seen by Dr.—?— who administered Neosynephrine and started intravenous plasma. About ten or fifteen minutes later, when I was free, I went to her room: Her condition was very poor. She was complaining of a terrific pressure in her chest and marked air hunger. She was very cyanotic and extremely agitated, enough so that it required two nurses to keep her quiet in bed. Oxygen was started, plasma continued. During the next half hour there was again moderately excessive bleeding due to relaxation of the fundus which was controlled by massage. Her condition progressed rapidly and she died in about forty-five minutes with considerable frothy mucus from her mouth five minutes prior to her death.

About five or ten minutes before she died, I considered the possibility of a ruptured uterus and did a sterile vaginal examination and found no laceration in any portion of the uterus which was felt throughout.

My diagnosis as to death was *pulmonary embolism;* the cardinal findings of which were marked cyanosis, pressure discomfort in chest and air hunger, marked restlessness, no response to plasma or blood—in fact, I believe she became somewhat worse with this therapy.

The question also arises of two other possibilities:

1. *Shock from bleeding.* I believe this can be ruled out from the fact that although bleeding was moderately excessive, it was in no way enough to cause death and instead of the usual pallor and listlessness caused by bleeding, she was markedly cyanotic and restless.

2. *Pituitrin shock* was possible, particularly with the past history of asthma and possibly cannot be completely ruled out.

Rupture of the uterus was ruled out by direct digital examination.

Comment by Reviewing Committee.—Non-preventable maternal death, cause not definitely indicated but presumably an embolic phenomenon, either pulmonary or cerebral.

MSMS

The frequency of discovery of lymphatic metastasis is almost directly proportional to the inquisitiveness and patience of the pathologist.

* * *

Anyone, particularly a man over forty, who notices any hoarseness or other throat discomfort lasting more than two weeks should immediately undergo a thorough laryngeal examination.

* * *

Until laryngeal mirror examination, laryngoscopy, and biopsy of all abnormal growths found have been performed, a diagnosis of nonmalignant disease is unjustified.

* * *

To classify carcinoma of the skin as a "relatively" nondangerous disease, on the basis of comparison with other and more deadly forms of cancer may be to throw away a patient's life.

Detroit Physiological Society

MEETING OF MARCH 15, 1951

Chemical Topography of the Human Heart in Circulatory Failure and After Digitalization

Norman E. Clarke and Robert E. Mosher

The Department of Research, Providence Hospital, Detroit

This study of the chemical topography of the human heart demonstrated that changes occur in the elemental composition of the myocardial tissue in circulatory heart failure, also in serious metabolic disorders which involve disturbances in electrolyte balance. The particular components studied were sodium, potassium, chloride and water. Forty human hearts were analyzed, of which seven were classified as normal, eleven cardiacs and five digitalized cardiacs. The cardiac group included only patients dying from clinically diagnosed circulatory heart failure. Samples of heart tissue were taken from the right auricle, right ventricle, ventricular septum, base and apex of the left ventricle. All complicating conditions or diseases were eliminated.

The muscle water content was determined by an official method of electric oven-air drying, sodium and potassium by wet-washing and the Beckman Flame Photometer, and chloride by conventional Volhard titration. Because of variation in water content, the concentrations of elements was on a dry tissue basis.

In the normal heart the water content is greatest in the right auricle and least in the left ventricle. The same was found for sodium, potassium and chloride content. The right ventricle composition is intermediate between the auricle and left ventricle. In normal hearts, sodium and chloride are higher and potassium lower in the auricle and right ventricle than in the left ventricle, a condition not present in cardiacs and digitalized cardiacs where the sodium and chloride content of the right ventricle equals or is slightly lower than in the left ventricle. Cardiacs have a higher sodium and lower potassium than normal which was found in all sections, while digitalized cardiacs hold an intermediate position.

The ratio of potassium to sodium is a sensitive and reliable index of the alkali metal balance in a heart. The ratio increases from the right auricle to right ventricle, to left ventricle. K/Na ratios for normals may be twice as large as for cardiacs. In the pathological heart that has been digitalized, the K/Na ratios are intermediate between the normal and undigitalized cardiac. The total number of milliequivalents of alkali metals in 100 g. of dry heart tissue is essentially the same for normals and cardiacs in contrast to the great change in K/Na ratios. The total number of equivalents of alkali metals increases from the right auricle to right ventricle and to left ventricle. The chloride content of the left ventricle in cardiacs is noticeably higher than that of normals, while the right auricle and right ventricle remain essentially unchanged.

The ratios of K/Na in pathological hearts cover a wide range and may be taken as evidence that the mechanism for controlling the electrolyte balance is influenced by several body reactions and does not exercise rigid control.

Other pathological conditions which influence electrolyte balance result in either abnormally low or abnormally high ratios of K/Na in the heart muscle, at times appearing sufficient to be a prime cause of death. The digitalized heart stands intermediate to the normal and the undigitalized heart of circulatory failure. Perhaps digitalis influences the heart cell surface so as to alter intra-extra cellular exchange of substances such as electrolytes.

Experiments on the Transplantation of Aortic Valves

Hartley H. Aram, Edward R. Munnell and Conrad R. Lam

Henry Ford Hospital

These experiments were carried out to determine whether it is possible to transplant a functioning aortic valve into the descending aorta of a recipient animal. A short segment of the ascending arch containing the semilunar valves

was removed from the donar animal, and the coronary arteries were ligated. The segment was then grafted into the thoracic aorta of the second animal, immediately distal to the subclavian artery. To prevent paralysis from occlusion of the aorta during the suturing, the minimal interruption method of Hufnagel using a lucite tube was employed. In a preliminary series, eight dogs survived the operation. When examined later at intervals of from one to two months, in only one instance did it appear that the valve had any function. The leaflets had become shriveled or clots had formed in the sinuses of Valsalva.

In a second series, insufficiency in the animal's own aortic valve was produced with a valvulotome inserted through the ventricle, after the valve graft was inserted. Pressure tracings with the Hathaway impedance gauge apparatus showed insufficiency proximal to the graft and the picture of sufficiency distally. The animals were sacrificed at intervals of from one to twelve months. Attempts to prove valve function with the pressure recording apparatus were inconclusive, and the valves would not hold water. However, eight out of seventeen animals showed valve leaflets which approximated the normal grossly, and which were undoubtedly capable of some function.

Nutritional Aspects of Growth Control in Tissue Culture

J. J. Worzniak
Wyandotte, Michigan

From the tremendous amount of research devoted to the problem of neoplasia, it is apparent that the number one problem of biology today is "Control of Growth." The uniqueness of the tissue culture method for elucidating the factors involved in normal, organized or organotypic growth of the explant as opposed to the "free" migratory, unorganized, or histiotypic growth issuing from it is discussed.

The problems of initiating and maintaining this "free" type of growth is one of distorting the mechanisms responsible for the development of the specific chemical linkages that constitute organized growth, and may conceivably consist only of failure to supply metabolites for the development of these specific chemical linkages.

By using plain Tyrodes solution as an incomplete nutrient with the roller tube method of tissue culture the growth effects of various metabolites were tested.

It was demonstrated that the sulfhydryl amino acids were powerful proliferation-stimulating substances both for the "free" as well as the organized types of growth.

Through their action, the complex embryo extract previously used for this purpose could be eliminated. Glucose and some intermediaries were found to be essential for the structural integrity of the explant as well as for proliferation of epithelium. Methyl glyoxal exerted a differential action on growth, causing absolute suppression of fibroblasts while allowing growth of epithelium, from bowel, lung, and liver explants. Liver epithelium, a traditionally difficult tissue, grew well in Tyrodes with glucose and sulfhydryl. But when glutamic acid was added a fibrous capsule grew, enveloped the epithelium, and suppressed further proliferation.

Cortisone was shown to be the "organized growth" factor without parallel. Muscle explants without cortisone appeared amorphous. With cortisone definite membranous and cartilaginous types of organization occurred.

It is suggested that only when we determine the metabolic and nutritive differences between organized and "free" or neoplastic growth, will we be able to employ metabolic antagonists rationally and successfully in the control of neoplasia. The present method is a good approach to the problem.

MEETING OF APRIL 19, 1951

The Application of Heat and Cold in Traumatic Injuries

Simon Benson
Wayne University

Traumatic injuries are here defined as strains and sprains, internal lesions resulting from torn muscular, vascular, and/or connective tissues (ligaments), and usually, but not always, accompanied by marked swelling. Perhaps it is worth noting here that, contrary to popular opinion, the size of the swelling is not necessarily proportionate to

the severity of the injury, as far as recovery period is concerned. Torn vascular tissue swells readily, but heals rapidly; torn ligaments, on the other hand, cause little swelling, but heal slowly.

Now, as to the most effective therapy for this type of injury, opinions and practices vary greatly, except perhaps that the injured part should be subjected to temperature changes, cold or heat: cold, generally by means of cold water or ice packs, to retard or reduce swelling; heat by means of hot water, hot air, radiant heat, or diathermy, to promote healing. This raises some questions: Which should it be, heat or cold? If heat, which "form"? Is one more effective than another? And equally, if not more important, how much of each? That is, what *dosage?* The effect of heat and cold, especially the latter, varies greatly according to dosage. Brief cold stimulates; prolonged cold depresses. Cold applications varying from a few minutes to twelve hours can consequently not produce the same effects. Furthermore, in a prolonged series of measurements, we found that cold water, down as far as 2° C., produced an increase, not a decrease, in the foot and leg volume; and the effect of heat applications, as measured by increased motility of an injured joint, was roughly as follows: hot air gave an increase of 14 degrees per treatment; hot water (whirlpool), 10°; diatheramy, 1.5°, the latter with a light dosage. High dosages produced pain and decrease of motion.

The Effect of Chondroitin Sulfate on the Proteolytic Action of Pepsin

Sarah Sheinfield and Stanley Levey
Wayne University College of Medicine

Chondroitin sulfate is of interest physiologically since it occurs in large amounts in cartilage probably bound to the protein collagen. In the present study the action of various enzymes on chondroitin sulfate was studied. The following enzymes showed no action as measured by changes in the viscosities of solutions of chondroitin sulfate: crystalline pepsin, trypsin, chymotrypsin, purified hyaluronidase, lysozyme, pectinase, and amylase. On the other hand, it was found that chondroitin sulfate would markedly inhibit the proteolytic activity of pepsin but not chymotrypsin or trypsin. Measurements of the casein-digesting power of pepsin were made by two methods, the first being the liberation of amino acid nitrogen using the copper method of Albanese and the second being the estimation of tyrosine being freed. Inhibition of pepsin occurred at pH 1.6, 2.5 and 3.5 with the greatest inhibition of activity occurring at the lowest pH.

Using the methods developed by Shay for producing ulcers in rats by tying off the pyloric end of the stomach, it was found that chondroitin sulfate would inhibit the formation of ulcers in these animals. The chondroitin sulfate was administered at a level of 25 mg. per animal immediately after the stomach was ligated. The present work indicates that chondroitin sulfate will inhibit the action of pepsin both *in vitro* and *in vivo*.

CLINICAL APPLICATION OF ADRENERGIC BLOCKADE IN SYMPATHETIC PREDOMINANCE

(Continued from Page 596)

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A swelling in the anterior midline of the neck superior to the thyroid gland is usually a thyroglossal duct cyst or fistula and uncommonly a dermoid cyst. A mass in the lateral area along the anterior border of the sternomastoid muscle is often a branchial cyst or fistula.

* * *

Palpation with one finger inside the mouth is often helpful in differentiating swellings in the floor of the mouth.

* * *

Multiple masses in the neck first suggest lymph node enlargement. Single masses should cause one to think first of congenital abnormality or primary neoplasm.

* * *

In the great majority of cases of cancer of the intrinsic larynx there is but one early symptom: hoarseness.

Bon Secours Hospital Clinic Day

June 5, 1951

MULTIPLE POLYPOSIS

J. F. Wenzel, M.D.

Multiple polyposis of the colon is thought to be an inherited disease, usually occurring in young adult males. While children are not born with the disease, they inherit the susceptibility of the epithelial cells to proliferate at puberty or in early adult life. The most common sites of these growths are the rectum and sigmoid although the entire large bowel is frequently involved.

Four cases of surgical extirpation of the large bowel for multiple polyposis are presented. In one case ileostomy and colectomy were performed in one stage and followed by a Miles' type abdominalperineal resection of an involved rectum. In the other three cases low ileosigmoidostomy combined with colectomy were done in one stage. Periodic check examinations are vital in the three with retained rectums. There was no mortality. Nutrition has remained good in all four individuals.

HIATUS HERNIA

L. E. Heavner, M.D.

The clinical aspects of esophageal hiatus hernia are reviewed with emphasis placed on evaluation in co-existing cardiovascular disease and associated findings in the upper gastrointestinal tract. Hasty conclusions based on anginal radiation of pain may do the patient an injustice.

Theories and experimental evidence of esophageal shortening are reviewed.

Roentgenographic illustrations of several cases are presented.

PROLAPSE OF GASTRIC MUCOSA

R. J. Reichling, M.D.

Definition: Prolapse of gastric mucosa is a redundancy and relaxation of the mucous membrane in the pyloric region of the stomach with the redundant mucosa passing through the pyloric ring and entering the duodenum.

Etiology:

1. Local hypertrophy of gastric mucosa following low grade inflammation.
2. Narrowing of pyloric musculature.
3. Hypertrophy of pyloric musculature.

Symptoms:

1. Vague epigastric distress.
2. Severe episodic pain between meals.
3. Vomiting.
4. Melena and or Hematemesis.
5. Weight loss.

Physical Findings:

1. Palpable mass in some cases.
2. Epigastric tenderness.

Diagnosis: Always by x-ray.

A case of prolapse of gastric mucosa is presented with surgical treatment.

ADRENAL INSUFFICIENCY

N. W. Diebel, M.D.

The state of adrenal cortical insufficiency is more prevalent than is usually realized. Many borderline cases are not recognized until the adrenal cortex is placed under conditions of stress; i.e., surgery, accidents, burns, or infection. At such times heroic and expensive treatment for the patient is the result. Needless fatalities unfortunately will result from diagnostic failures. Improved accuracy of tests for Cortical Insufficiencies are now in use, and simplified to such an extent that they may be performed as office procedures. Maintenance therapy can efficiently be maintained with diet, salt, and the synthetic extracts, with supplementation therapy during periods of stress.

SYMPATHECTOMY IN ARTERIOSCLEROSIS

D. N. Sweeny, M.D.

Individuals suffering from arteriosclerosis obliterans have until recently been denied the beneficial effects obtained by elimination of sympathetic tone. It can be shown that many extremities are salvaged.

Selection of the patient both for prophylatic

Synopses of papers presented at the Annual Clinic Day of Bon Secours Hospital, Grosse Pointe, Michigan, June 5, 1951.

and therapeutic surgery is important and indications for and contraindications to sympathectomy in this group is discussed.

CERVICOBRACHIALGIA

G. R. Granger, M.D.

Differential diagnosis of and therapy for neck-shoulder-arm pain may be facilitated by the application of a few neurological principles together with radiographic interpretation of existing cervical spine pathology.

Familiarity with cervical dermatomes and deep tendon reflex pathways greatly increases accurate localization of neurosvascular or focal neurospinal disorders.

Special emphasis is given to discogenic radiculitis and hypertrophic osteoarthropathy as possible etiological factors in cervical nerve-compression-syndrome.

Interpretation of spinal fluid chemistry and hydrodynamics concomitant with cervical myelography is indicated in intractible cases.

Diagnostic Sayre traction, paravertebral sympathetic block, or deep radiation is often therapeutic in effect.

Surgical measures are outlined.

THE ANAL GLAND

R. M. Burke, M.D.

This paper is a discussion of the epithelial lined ducts of simple or complex type which have been demonstrated in the various anal quadrants in surgical and necropsy material. These ducts are shown to be of varying length, direction, and number, and exhibit pathological change not infrequently. The significance of inflammatory processes in and about these tubules is considered in relation to the origin and spread of infections of the perianal and perirectal spaces. The occasional presence of gland-like components of these structures and the extremely rare involvement of them in tumor formation is discussed. Diagrammatic and photographic slides serve to illustrate the paper.

CEREBRAL ANGIOSPASM

R. L. Fisher, M.D.

Though still questioned physiologically, cerebral angiospasm would appear to be a clinical entity. The syndrome is confused with organic etiologies, cerebral dysrhythmias, and metabolic disturbances. The mooted question of its *de facto* existence and the difficulty of objective criteria of proof place diagnosis and therapeusis on an empiric plane. Cases have been cited to suggest that sodium diphenyl hydantoinate (dilantin R) induces remission of symptoms.

EARLY AMBULATION

E. J. Tamblyn, M.D.

1. Physiological principles involved
2. Choice of anesthetic
3. Choice of incision
4. Suturing
5. Type of suture
6. Contraindications

INTUSSUSCEPTION

E. F. Lang, M.D.

Of the cases of this form of incarcerating obstruction which come to operation, the great majority are in young infants, occur almost invariably without demonstrable cause, and are without recurrence. These factors admit the feasability of non-operative reduction in selected cases. In adults there is almost always an evident precipitating cause, most frequently an intestinal tumor.

Recent roentgenographic evidence indicates that acute recurring intussusception with spontaneous reduction is more frequent than generally believed, in both children and adults. This form may be only mildly symptomatic.

BRIEF SUMMARY OF CLINICAL PHYSIOLOGY OF POTASSIUM

Hugh Stalker, M.D.

Potassium is found in both intracellular and extracellular fluids and is twenty-three times as concentrated in the former. Laboratory evaluation of the body potassium is that of the serum potassium. Many physiological factors tend to increase and decrease serum potassium concentration. The equilibrium between extracellular and intracellular potassium is constantly being interfered with by many factors.

The cardiac observations, as noted by electrocardiography, are generally the only significant ones, as symptoms of hyperpotassemia chiefly involve the heart. In several respects the opposite of these electrocardiographic findings are noted

with low serum potassium concentration. Variations in body potassium must be watched in diabetes, acidosis, infantile diarrhea, surgical conditions, paresthesias of the extremities, flaccid paralysis and uremia.

CONGENITAL POLYCYSTIC DISEASE OF THE KIDNEYS

I. G. Downer, M.D.

Polycystic disease of the kidneys is a congenital one which has been described for many years. Its etiology is not completely understood, although it is definitely of a congenital nature. The early symptoms are those of chronic nephritis and later that of tumor, pain, hematuria and eventually renal failure.

Diagnosis is made by clinical symptoms, unilateral or bilateral tumors of the renal regions and x-rays.

Treatment: Most cases should be treated medically, but where there is evidence of multiple large cysts, the operation of drainage of the cysts may change the entire picture from one of extremis to that of complete symptomatic recovery for years.

Five cases are reported. Two of these have been essentially asymptomatic for five and eight years following surgical drainage of the cysts.

VENTRICULAR TACHYCARDIA

H. A. Klein, M.D.

Ventricular tachycardia is a serious disorder of cardiac rhythm. It occurs predominantly in patients with severe organic heart disease and rarely in the absence of cardiac pathology. The common theory is that the rapid ventricular rate is related to ischemic foci in the ventricular musculature. Since diastolic filling is greatly reduced by the tachycardia, there is a consequent decrease in cardiac output. At times the cardiac output may be reduced sufficiently to produce cardiac failure, angina pectoris, vertigo, or syncopy.

The necessity for early recognition and treatment of this condition is most important in order that further cardiac damage, shock, or abnormalities of rhythm, such as ventricular flutter and fibrillation are not produced. Clinical differentiation from other tachycardias depends upon the presence of a changing intensity of the first heart sound at the apex, slight irregularity of the ventricular cycle length, and the lack of response to vagal stimulation. The electrocardiographic diagnosis is the most accurate method available at the present time. Exact diagnosis is imperative since quinidine is the drug of choice and digitalis is definitely contraindicated.

DIVERTICULA OF THE STOMACH AND DUODENUM

H. M. Fuller, M.D.

Diverticula of the alimentary canal occur in variously reported frequencies. Symptom producing diverticula of the stomach and duodenum can only be positively diagnosed roentgenographically. The roentgen incidence is about 0.4 per cent for stomach and about 2 per cent for the duodenum.

Surgical treatment of these defects is relatively uncommon because of the failure to correlate the symptoms with the findings; the presence of coexisting lesions such as cholelithiasis, peptic ulcer, etc.; the technical difficulty in locating the lesions at operation; and the fear of possible fistula following an elective operation.

Two cases are presented with lantern slides showing preoperative and postoperative roentgen findings and demonstration of diverticulum at operation. One case is that of a large symptom-producing diverticulum of the cardiac end of the stomach. The other case is a large symptom-producing diverticulum of the third portion of the duodenum.

These diverticula should be treated surgically and can be so treated with expectation of complete relief of symptoms at relatively low risk.

THE SURGICAL TREATMENT OF DEAFNESS

J. E. Coyle, M.D.

The various types of deafness are discussed, with emphasis placed upon etiological factors and methods of treatment. Particular reference is made to clinical otosclerosis and the fenestration operation. The indications for the operation are considered, and the ultimate results are tabulated. Kodachrome slides of representative audiograms and the technique of the operation, as well as slides of an actual operation are included in the paper.

(Continued on Page 685)

Leadership and Service

Today we are reminded that men of medicine brought to fruition a plan for medical care in 1939 and 1940. It was conceived as a service to those of moderate incomes. By the plan, physicians were to receive average fees for services rendered those earning $2,000 per year, if single, and $2,500 per year, if married. According to surveys at that time, this would have covered 75 to 80 per cent of the people of Michigan.

Due to conditions beyond our control, we encountered rising prices, increased cost of living and inflation. Because of bureaucratic unrestrained deficit spending, the dollar has been devaluated to one-half its normal worth. It is no wonder that employers and unions alike complained that Michigan Medical Service plan was serving only a small percentage of those it originally intended to benefit.

In 1946 and 1947 the dissatisfaction began to express itself in a very tangible form. Many groups of subscribers cancelled their policies.

Over the next four years an extensive study was made; a new fee schedule and contract were finally approved by the House of Delegates of the Michigan State Medical Society in 1950. Again about 80 per cent of the people of Michigan would be covered. In November, 1950, this new plan, covering a subscriber earning $3,750 per year, if single, and $5,000 per year, if married, was announced. How well the profession accepted it can be ascertained by the fact that sixty-one physicians added their names to the thousands of participants and only ten dropped out.

Now where do we stand? Will this fee schedule and contract continue to satisfy? Not for long, if wages and cost of living continue to spiral and inflation remains unchecked. Every few days we hear the national budget has been increased and a new tax is being developed in the Washingtonian Institute of Delirium. Our Board of Directors of Michigan Medical Service will soon be getting orders to stand by for consideration of another increase in premium rates. The House of Delegates will be told that in order to compensate for a twenty-five cent dollar, the income limits must be increased to $10,000 and $7,500, respectively, if we wish to continue to cover 75 to 80 per cent of the people. Where does it end? That is the immediate and pressing

problem. We must stop this nonsensical bureaucratic spending which causes inflation. We have our CAP, Woman's Auxilliary, Speakers' Bureau, liaison with press, radio and television, so what are we waiting for? Our influence with our friends and patients remains as great today as it ever was. **This country needs real leadership.**

Once these devastating inflationary tendencies can be stopped, we can begin our plans for a more complete and available medical care. Many features have been considered. Much thought has been given to home and office coverage with the first two calls deductible. Another plan would be complete medical care with the first twenty-five dollars of service deductible.

A few years ago one of our members proposed a sliding scale of payment, based on the patient's income, in which federal tax funds could be utilized to subsidize the unmet cost for those of low income. There were many inherent dangers recognized in this, the greatest of which is the control which comes with any federal aid. Some type of federal aid plan has been suggested by the unions, because the cost would then be evenly distributed over all the people. In support of this, cases are cited where money made locally is spent outside the state.

We could think of a better approach. The federal tax take could be reduced by at least 50 per cent if budgets in Washington were carefully planned. This would leave funds available for use on the state level under local supervision. Care for the indigent and low income groups could then be financed through Blue Cross and Blue Shield without danger of federal control. Above all else we must maintain human dignity and the freedom of the individual.

As far as this country is concerned the Medical and Hospital Service Plans are our greatest bulwark against Socialism and Communism. It is not a question of whether they will continue to expand and serve the people. **They must not fail. And it is the responsibility of every individual Doctor of Medicine to ACT so Blue Cross-Blue Shield do not fail.**

President's Message



C E Umphrey M D

President, Michigan State Medical Society

Editorial

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

SOLVENT!!!

IS Michigan Medical Service, the Michigan Blue Shield plan, solvent? Several students asked that question of the Editor when he gave one of the series of four lectures, sponsored by the Michigan State Medical Society at each of our two Michigan medical schools, at Ann Arbor, May 8, 1951. These lectures have been given for several years to acquaint the young doctors-to-be with problems not included in the medical curriculum.

The students said the impression had been given them, source undesignated, that the Blue Cross and Blue Shield are financially embarrassed and might be in serious difficulty trying to render their contractual services. It had been intimated that doctors were undermining the resources of their own brain-child by ordering for their patients with hospitalization and medical insurance many unnecessary or needlessly expensive services or medication, merely because they could be obtained. The students were worried. We told them it is true some abuses are apparent, but we have been trying to keep them at a minimum. We believe very few doctors are deliberately sabotaging our Service plans. Some may do it unknowingly.

We have faith in our profession. Proof of that faith and its well-merited application is given by what has been accomplished in eleven short years.

Reports in this number of THE JOURNAL prove solvency. Michigan Medical Service started with nothing but a hopeful idea and a promise. It now is serving almost two and a quarter million persons in our state, well over one-third of Michigan's population. It owns an office building in Detroit. It has assets of $6,479,000 with liability (advance payments, unearned services, and those in the process of payment) under $4,000,000, leaving a reserve of $2,560,120. Michigan Medical Service is now paying over $1,100,000 a month to doctors for services rendered their patients.

Yes, Michigan Medical Service is solvent. And we appreciate we are a great public service agency built by doctors and operated by doctors.

Sabotage our brain-child!—NEVER.

WORKMEN'S PENSIONS AND INDUSTRIAL PHYSICIANS

THROUGH long custom every good industrial physician refrains from extensive medical activities among employes for ailments of non-occupational origin. Properly it has been recognized that the management of any such conditions is a matter between the employe and the private physician of his own choice. Nevertheless the industrial physician has certain responsibilities which he must accept. Through necessity he often faces the duty of recommending rejections of applicants with disqualifying physical defects. The industrial physician is also required by law to remove from company premises workmen with readily communicable diseases and, in addition, most industrial physicians extend emergency care to employes suffering acute episodes of non-occupational illnesses to enable them to finish out the day's work.

Frequently, need arises for industrial physicians to make extensive medical examinations in order to rule out obscure occupational diseases. Apart from such considerations the disposition of the industrial physician always is to direct employes requiring medical care or attention for occupational injuries or diseases to their own private physician. To put it mildly, the industrial physician has no desire to accept responsibility for treatment of such conditions as nephritis, gastric ulceration, pernicious anemia, non-occupational cancer and dysenteries—to mention but a few. By no means does this imply that industry or the industrial physician is lacking in interest in the incidence of such illnesses within its work population of all manner of diseases from tuberculosis

Submitted by Guiding Board of Workmen's Compensation Committee of The Wayne County Medical Society on recommendation of The Council of The Wayne County Medical Society.

to cirrhosis. However, it does mean that this well-devised concept of medicine fully recognizes the prerogatives of the private practitioner. As a result an admirable relationship and mutual respect has been built up between private and industrial physicians.

Newer developments, however, may cause some misunderstandings to arise and could threaten to disrupt this relationship. With the advent of retirement pensions for disability, from any cause, every disabling condition becomes more closely identified with employment. While the provisions of pension contracts vary from company to company, substantially they all include the opportunity for retirement, for any type—(total and permanent)—of disability, prior to the standard requirements of age and years of work duration. But since the employer is responsible for paying the pension benefits he must be concerned as to the validity of these claims for total disability. To a certain degree every disease capable of inducing total and permanent disability now has occupational significance, and industry will undoubtedly have a very definite interest in such disabilities if they are expected to pay claims for retirement on this basis. In some instances the plant physician might be called upon to enter the appraising procedure of such claims even though he has no wish to be placed in such a controversial position. It is just at this point that the opportunity may arise for misunderstandings and the disruption of good relations between the private and industrial physicians might be jeopardized.

Under optimal conditions the plant physician should never serve in any capacity except that of strict neutrality between the individual worker, his union and the employer. However, whatever conclusions might be reached by the plant physician in pension retirement appraisal, this nicely balanced neutrality may be questioned. Somebody's displeasure may be aroused. If many such incidents should arise future services of the industrial medical department may become surrounded by suspicion and in particular an unfavorable attitude may be engendered in the mind of the private practitioner who for years may have had under his close observation the very condition leading to the issue of retirement. Still further dissension may arise on the part of the private practitioner if the industrial physician's appraisal of the case takes precedence over the family doctor's recommendations. This situation obviously is not one of the industrial physician's choice. It is a development of the times. Duly deliberated it might appear laudable that the plant physician be not charged with decisions of this character. As a procedure substitute divers methods have been proffered, salutary alike to the employe, the plant medical department, the private practitioner, the union and the employer.

One plan suggested which should relieve this controversial position between the private physician and the industrial physician to a great degree is as follows: Whenever an employe becomes allegedly totally and permanently disabled from non-occupational causes prior to the regular selected date of retirement he will, of course, have been in such a condition for some time and undoubtedly under the care of his private physician. In most instances such periods of sickness or disability extends for at least six months and any claims for such disability are made through the regular channels of the insurance company handling such claims. If at the end of the six-month period the insurance company should feel that the employe concerned is totally and permanently disabled the claim for pension will undoubtedly be accepted by the employer, but in the event a question arises as to the validity of such claims the final decision might be made through a highly qualified unbiased group, acceptable both to the union and employer, located near the work vicinity of the persons in question. It is evident that no one of these groups can afford to be identified with the employer or the union.

The belief is inescapable that if the impartiality herein reflected is procured in all instances of troublesome decisions involving disability retirement of employes from non-occupational illnesses the present threat of discord between the private practitioner, industrial physician, union, employe and employer will be avoided. In any event, even though the industrial physicians of certain plants should be given the responsibility of reaching such decisions, should there be a difference of opinion between the employe's private physician and the industrial doctor involved, it is hoped that both parties will see fit to use the same discretion, courtesy and good judgment in these cases, usually shown between two consultants when they are called in on a puzzling case.

In other words, it is hoped that the doctors

(Continued on Page 684)

With Firm and Regular Step

"With firm and regular step they wend—they never stop
Successions of men, Americans, a hundred million,
One generation playing its part and passing on,
And another generation playing its part and passing on in its turn . . ."

—Walt Whitman, *Leaves of Grass*

1

IT HAPPENED on a Thursday evening, in October, 1947. The scene was the living room in the Grand Rapids home of Dr. and Mrs. A. B. Smith. Present, in addition to Dr. and Mrs. Smith, were the late Senator Arthur Vandenberg, Dr. Wilfrid Haughey, Vice President of Michigan Medical Service, Dr. L. Fernald Foster, Secretary of the Michigan State Medical Society, William J. Burns, Executive Director of the Michigan State Medical Society, and Jay C. Ketchum, Executive Vice President of Michigan Medical Service.

The scene followed immediately after dinner. Dr. Smith, a member of the MSMS Council, was family physician to the Vandenbergs. The party was arranged because the Senator had expressed his desire to get together with officers of Michigan Medical Service and the Michigan State Medical Society to find out more about Blue Shield and Blue Cross.

Senator Vandenberg's questions had been astute and penetrating. He listened attentively to the answers, only to ask more questions, yet managed to maintain the conversation on a pleasant general level, so that there was no feeling that they were talking shop. In the living room, he suddenly dropped his Socratic role and turned to the men who had come to answer his questions.

"You have done something in Michigan that you didn't know you were doing," he said. "You have established a public trust. Your Michigan Medical Service and Hospital Service—Blue Cross—are a public trust. You didn't intend to do it so, and you didn't know that you had done it, but you have. You have taken fifty million dollars or so of the people's money and have used it for the benefit of the people. As such you are the trustees of a public trust!"

And only yesterday, recalling the Senator's words, recalling the scene, Dr. Haughey said:

"That was the most impressive thing that happened to me in all the years we worked to establish our prepayment programs. I listened to the Senator and thought of the way we started with $10,000 borrowed from the State Medical Society. I thought of the $500,000 deficit we ran up during the first eighteen months. What Senator Vandenberg said changed my perspective."

The Senator's words changed the thinking, changed the perspective, of all in that little group. The words "public trust," pronounced by an outstanding leader, crystallized the thinking of the men behind Blue Shield and Blue Cross. It changed the history of the two services in many ways.

In a little more than three years after the above scene took place, Michigan's Blue Shield Plan had enrolled more than one in every three persons in the state.

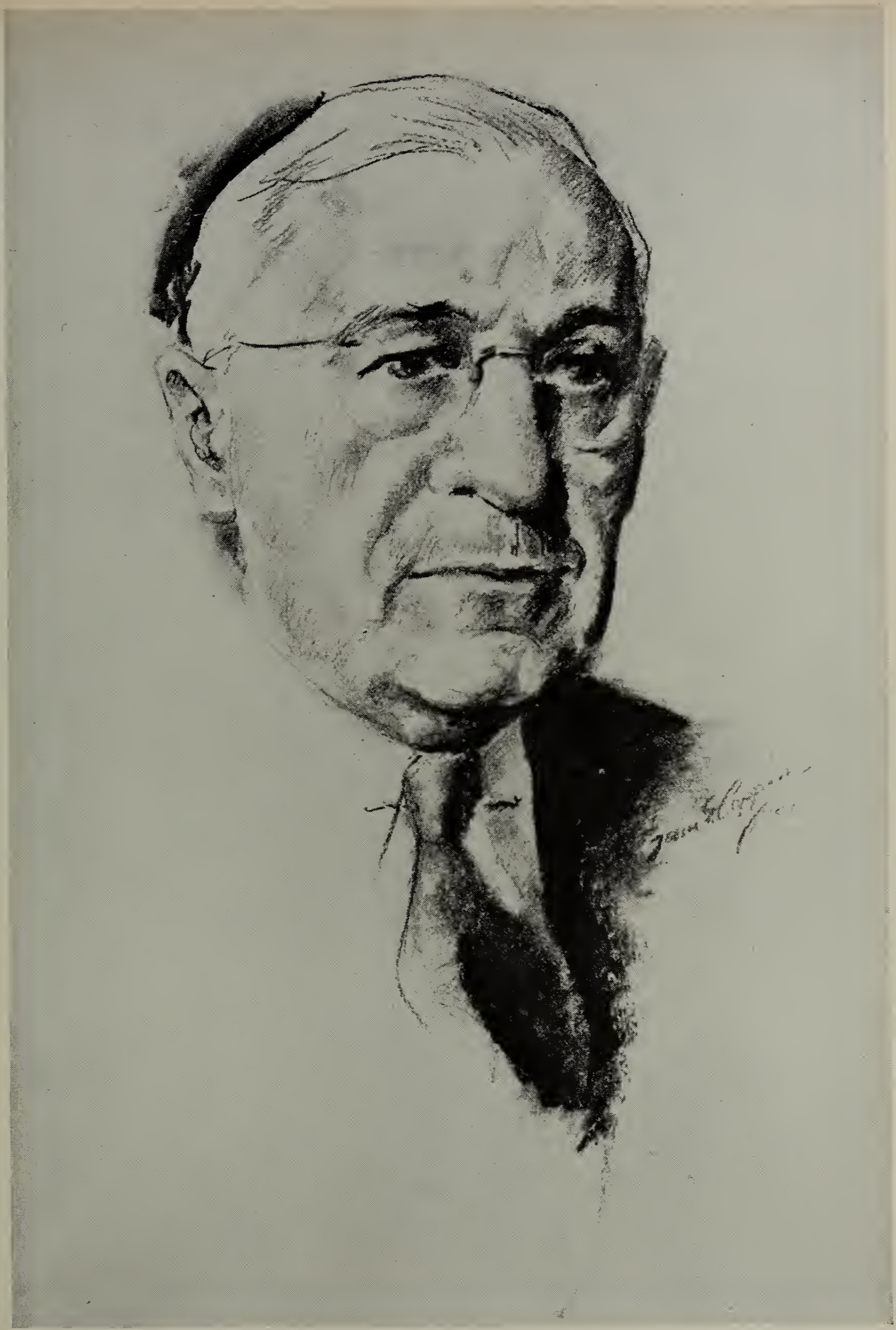
Michigan Medical Service, established with a $10,000 loan from the State Medical Society, was paying out $1,000,000 a month for medical and surgical benefits to its members!

2

The story of Michigan Medical Service began as practically all things born of necessity begin. It began in a lot of different places, and in no two places in the same way. It began in the minds of many different people, and in each in a different way. But one thing must be said at once, must be set down at the cornerstone of all there is to be said—the doctors pioneered the effort from the beginning.

One can begin with the Calhoun County Medical Society. It was at a meeting of this Society, at the Athelstan Club, in Battle Creek, in 1931, that a plan was presented for establishing a medical insurance plan. The first plan was developed by Dr. Harry F. Becker, Dr. Joseph E. Rosenfeld and the late Dr. R. C. Winslow. Action on the proposed plan had to be abandoned when it was pointed out that the rules of the American Medical Association prohibited economic undertakings by affiliated medical societies.

Here is a point on which an honest man could



H. A. Luce, M.D.

mistakenly build a case against the AMA, and which a fool could turn into a political issue. The view that professional and scientific societies must not be used for business undertakings was not peculiar to the AMA. Most professional and scientific societies guide themselves by this rule to this day. Any medical society is both a professional and a scientific society. And health insurance, viewed in 1931 terms, is obviously a business, is an unmistakable economic undertaking. The purpose of the rule was to protect the public interest, not to oppose it.

However, the grass roots medical societies, unlike the AMA, in Chicago, were under the direct pressure of what Santayana calls "the logic of things." It happened that the doctor, unlike the members of the other scientific professions, served each individual citizen on an individual basis. The economics of this individual and professionally individualized relationship was developing trouble. The depression brought all the troubles to a head. Rules or no rules, the Battle Creek doctors had to act in an organized way to set up the mechanics of an "economic undertaking" in order to provide medical and hospital care for those unable to pay any part or only a part of the costs.

In Detroit, the Wayne County Medical Society found itself in the same boat. There were rules, but the needy had to be served. Following a plan worked out by Dr. Ralph H. Pino, of Detroit, the Wayne County Medical Society headquarters became the co-ordinating center for a program that provided both medical and hospital care on an installment payment basis. The patients paid for their hospital and medical care at the Society headquarters, and the Society distributed the money it received to each co-operating doctor and hospital.

The same thing was happening everywhere. We see here a characteristic situation in human history. Facts have their way. They cannot be denied. But human beings do not live by facts alone. There are rules. Disciplines are necessary. Rules that have stood the test of time, that have helped lay the foundation for high ethical standards, that have made the medical societies progressive instruments in an ever-improved medicine—such rules cannot obviously be junked at the first crisis.

Insurance is a business. A scientific society, operating under a non-profit charter, must not engage in business. Were the problems created by the depression purely temporary? Was the medical profession facing a revolutionary situation that called for an overhauling of its thinking and rules? It is easy to have a positive opinion today. But twenty years ago the issue raised was more than debatable. It was not only debatable among men, it was debatable, and was debated, in the mind of each doctor.

The march of events was settling the debate. As Dr. Haughey recalls, a survey on the cost of medical care, made in 1931, by the Michigan State Medical Society, and the Hoover Committee Report on the Cost of Medical Care, published in 1932, produced factual data, as well as an overall picture of the problem, which convinced an increasing number of doctors that it was to their interest to try to develop a voluntary prepayment plan.

To work out such a plan on the local level, the Calhoun County Medical Society appointed a new committee, consisting of Dr. Haughey, Dr. Becker and Dr. Harvey C. Hansen. The committee worked for two years. Finally, it came up with a medical prepayment plan which provided medical care in the home, the office and the hospital.

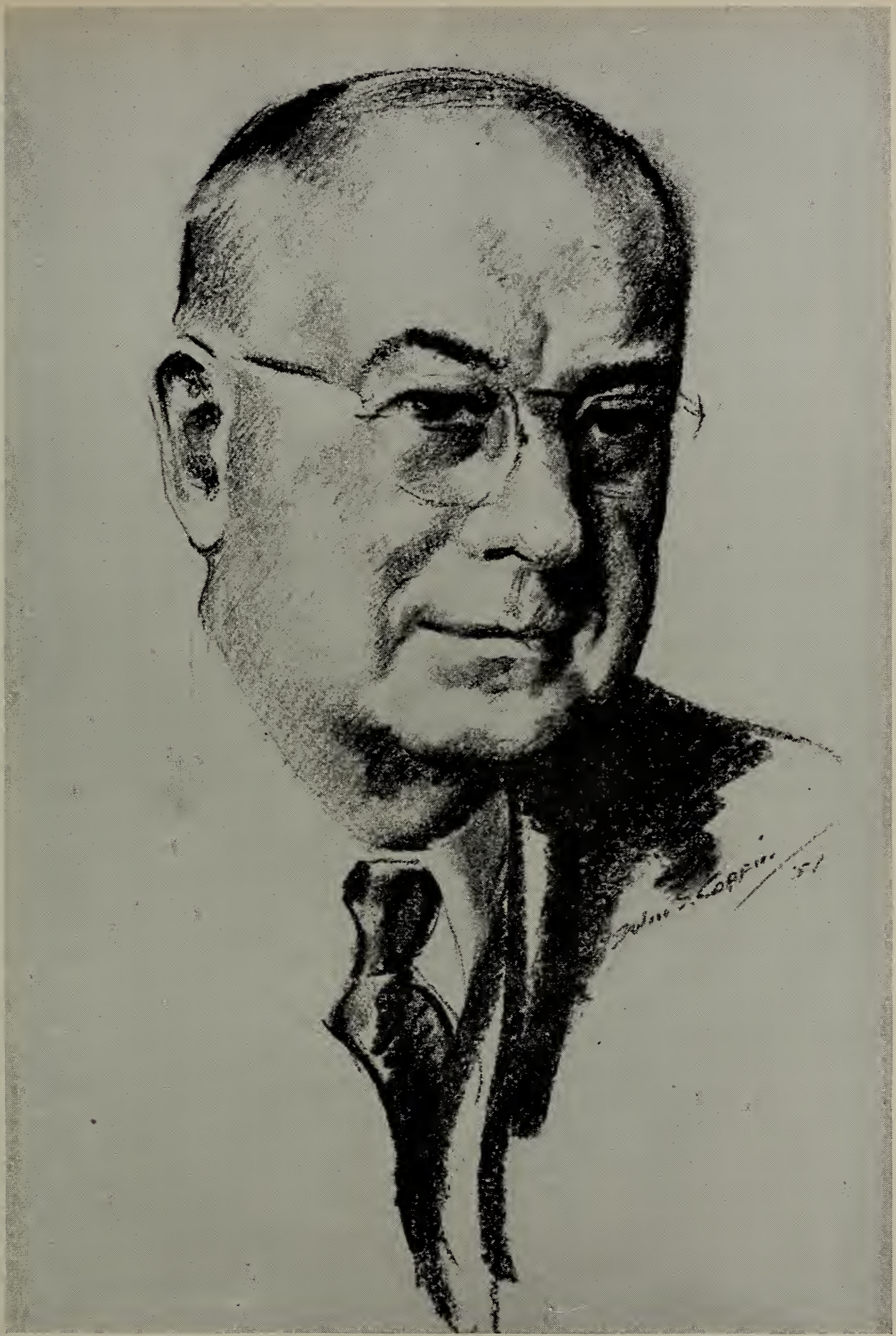
In 1934, the Calhoun County Medical Society adopted the plan developed by Dr. Haughey and his associates. That was more than ten years before Truman became President. But when everything was ready, the members of the committee were informed that they would violate the state insurance laws if they proceeded with their plan!

This is the story of the efforts of one grass roots medical society. But in the essentials of the thought, the planning and the frustration involved, it is by no means the story of only one society. The story began and ended long before Mr. Ewing appeared on the scene.

In many ways it is the story of one man—Wilfrid Haughey. It explains why, after seventeen uninterrupted years of effort and achievement, despite frustrating rules and laws, despite human obstinacy and human inertia, he found Senator Vandenberg's statement, that he had fashioned better than he knew, "the most impressive thing that had happened to me. . . ."

3

Michigan Medical Service is the child of the Michigan State Medical Society. The story of its



Wilfrid Haughey, M.D.

beginnings and growth is an inseparable part of the story of the State Medical Society.

It was at the meeting of the MSMS House of Delegates, at Pontiac, on September 22, 1931, that Dr. Alfred Whittaker, of Detroit, introduced a resolution calling for the State Medical Society to make a survey of all public health organizations in the state and of the work they were doing.

Dr. Whittaker introduced the resolution because he felt there was evidence that medical service to the public had not kept pace with medical knowledge. He attributed the situation to two factors. First, the depression had increased the number of indigent and semi-indigent patients, which development had increased the volume of charity cases each doctor had to handle while at the same time decreasing his income. Secondly, numerous organizations had appeared, under both medical and lay control, which were assuming with increasing aggressiveness the right to dictate the method of providing medical service for many groups.

Dr. Whittaker's resolution points up what has been forgotten in the 20 years that have intervened, and, because forgotten, so often distorted. The doctors were not just sitting tight in a nicely static situation. The country was undergoing an economic upheaval. Reformers were a dime a dozen, and all were thriving. While the doctors were doing their best to meet the needs of the people, they found themselves confronted by an insidious trend to take the rules and methods of medical practice out of their hands.

From the beginning, therefore, as Dr. Whittaker's statements indicate, the doctor had to fight a war on two fronts. On the one front, he had to mobilize quickly to stem the tide toward the socialization of medical practice through the use of corporate concepts and methods. At the same time he had to fight a war on his own professional front to overcome the traditional and ingrained reluctance on the part of the profession to preoccupy itself with economic problems.

Dr. Whittaker's resolution was referred to the Council. On October 7, 1931, the Executive Committee, meeting at the Hotel Durant, in Flint, considered the resolution. After a long discussion—and all discussions were long in those days—the Committee on the Survey of Medical Services and Health Agencies was set up. Dr. Carl F. Moll, President, appointed the following members to serve on the committee: Dr. W. H. Marshall, of Flint, Chairman; Dr. L. G. Christian, of Lansing; Dr. F. A. Baker, of Pontiac; Dr. C. S. Gorsline, of Battle Creek; Dr. B. V. Estabrook, of Detroit; and Dr. F. C. Warnhuis, of Grand Rapids, Secretary of MSMS, to serve as secretary ex-officio.

The Committee worked hard on the report it was set up to prepare. It made its report on July 12, 1933, at a special meeting of the House of Delegates, held in the Olds Hotel, at Lansing. Acting on this report, the House of Delegates established a standing Committee on Medical Economics. Dr. Marshall was made chairman. Dr. Baker, Dr. Christian, Dr. Estabrook and Dr. Gorsline were put on the new committee.

The Committee on Medical Economics was instructed to study, prepare and present for consideration of the House of Delegates a plan or plans for health insurance, based on the following principles:

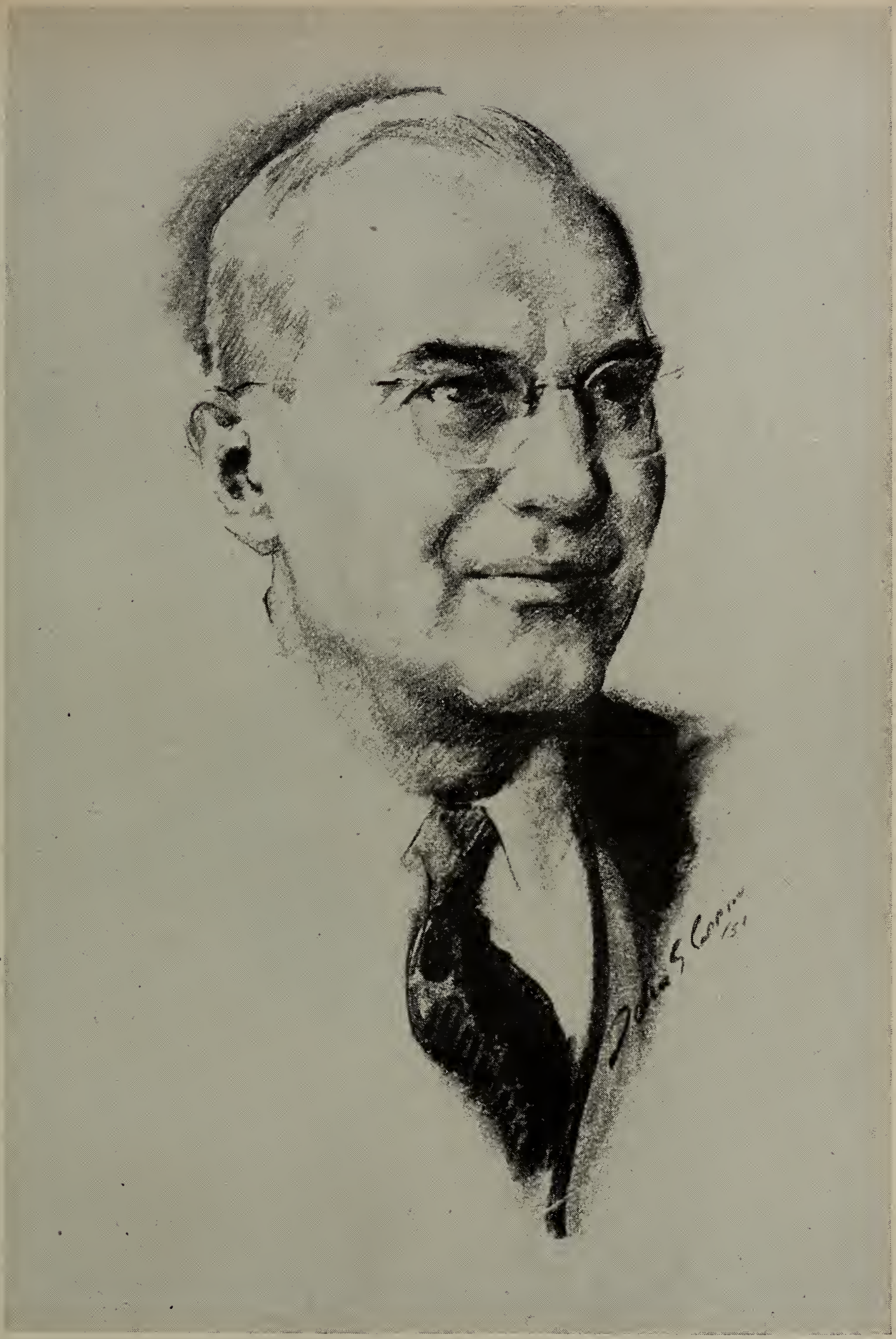
1. Free choice of physician by insured.
2. Limitation of benefits to medical services.
3. Control of medical service benefits by the profession.
4. Exclusion of individuals or organizations that might engage in health insurance for profit.

These principles give us a full outline of the future Michigan Medical Service. Commenting on this development, Dr. Henry Luce, of Detroit, President, Michigan State Medical Society, 1936, explained it as follows:

"At first the doctors decided to act in order to protect their own interests. Very soon they realized that the only way they could really protect their own interests was by serving the interests of the people. We could see this transition taking place when the Committee on Medical Economics was set up as a standing committee. . . .

"The closer we came to concrete action, the more pronounced became the opposition to action within the ranks of the doctors. Yet this opposition must not be mistaken for what it may appear to be to a lay person. It is a part of the training of the doctor, a part of his medical ideology, to receive another doctor's diagnosis or proposal with reserve. He becomes skeptical and even negative, when confronted by another doctor's proposal, even though his real impulse is to be positive and constructive. Thus, debate among doctors, even though it may sound uncompromising, has its own way of working itself out. The history of Michigan Medical Service has shown that. Its best leadership has ultimately come from those who were originally its most stubborn opponents."

The Committee on Medical Economics made its first report to the State Society, at Grand Rapids,



Ralph H. Pino, M.D.

on September 11, 1933. The report covered proposals for medical care for indigents, public health and health insurance. While the report was well received, there were those who proposed that the Committee be discharged because of lack of funds. The proposal was defeated. The Committee was continued with an appropriation of $500. Dr. Marshall continued as chairman, and Dr. I. W. Greene, of Shiawassee, Dr. S. Pritchard and Dr. P. A. Riley, of Jackson, were added to the Committee.

The years 1934-1935 proved very important in the history of the Committee on Medical Economics.

Here is the way Dr. Philip Riley, of Jackson, recalls the events:

"The Committee held its meetings at the Michigan Union, in Ann Arbor, on Sunday afternoons. We had a lot of plans. We wanted to do many things. We also felt we needed more information than we had. But we had no money. One day, Dr. James Bruce, Vice President of the University in charge of Postgraduate Efforts, came to our aid. He more or less took charge of things and got us a $10,000 grant from Tracy McGregor, of Detroit.

"When we got the money, we borrowed Nathan Sinai from the University for a fee of $4,000. Between 1933 and 1934, he had made a survey in Michigan of how much people spent on medical care, dental care, hospital care, drugs and special nurses. We felt we needed a man of his abilities to help us technically in gathering the information we needed.

"At Christmas time, 1933, we held a meeting at the Statler, in Detroit, and decided to send Sinai to Europe to make a study of what the European countries were doing with health insurance. I made the motion to send Dr. Henry Luce with him."

At the time, Dr. Luce was Speaker of the House of Delegates.

Nathan Sinai was made Director of Research of the Committee on Medical Economics.

Actually, the whole matter of sending Dr. Luce and Mr. Sinai to Europe was placed before the Executive Committee during the latter part of December. The Executive Committee realized that the undertaking was important not only to the doctors of Michigan, but to those in every state. It was, therefore, decided that it would be desirable for the Executive Committee to meet in Chicago with officers of the AMA, to plan the best possible course. The Executive Committee also desired to get special information from the officers of the AMA on health insurance in Britain.

It is recognized now that Dr. Luce had done an outstanding and indispensable job in providing the background for the establishment of Michigan Medical Service. However, the misunderstandings which dogged his efforts began at the Chicago meeting with the officers of the AMA.

"To me," Dr. Luce reported, "the results of this meeting—were both unsatisfactory and disturbing. Those present, in addition to the Executive Committee and Dr. Bruce, were Dr. West, Dr. Leland, Dr. Woodward and Dr. Cary, Ex-President of the AMA.

"The Michigan delegation placed its problem before these men and asked for specific information. The information requested was not forthcoming and the general attitude seemed antagonistic. Dr. West kindly explained the workings of the AMA; the discourse was not on the subject and failed to answer our questions. Dr. Leland appeared to be guarding 107 pages of manuscript on the subject of health insurance, but stated he was not in a position to report. Dr. Cary magnanimously offered advice that seemed to be a bit gratuitous. He said that we should thoroughly thrash out the whole subject, that we should not involve ourselves, and that Michigan should delay lest it get into trouble. In short, the advice was 'Do nothing.' All this, of course, gave little information and less comfort to the Michigan Executive Committee."

(Indicative of the tremendous change that has taken place in medical thought on the subject of prepayment, the Dr. Cary referred to above is Dr. Edward H. Cary, of Dallas, now President of both the Blue Shield and Blue Cross Plans of Texas. He is one of the most highly respected men in the AMA for his progressive and constructive attitude toward the whole problem.)

The Chicago meeting offers evidence of the quality of the leadership in Michigan's medical profession, and why Michigan's doctors took the lead in pioneering the voluntary health insurance program.

The meeting over, the Michigan Executive Committee, despite the discouraging experience with what Dr. Luce calls "their employes" in the AMA, voted unanimously to send Dr. Luce and Mr. Sinai to Europe.

They sailed on January 3, 1934, and returned on February 9.

4

On April 2, 1934, the House of Delegates held a special meeting to consider the report of the Committee on Medical Economics and Dr. Luce's report on his European survey. The meeting took place in Hurley Hospital, Flint.

It was one of the most important meetings in the history of the development of Michigan Medi-



Henry R. Carstens, M.D.

cal Service. This time, the Committee on Medical Economics came up with a complete health insurance plan, and with a name for it—MUTUAL HEALTH SERVICE.

Dr. Luce's report had cleared the air for the members of the Committee. Their thinking became more concrete, their recommendations more urgent. At the same time, and perhaps inevitably the dissenters became more vocal and more bitter. Dr. Luce proved an excellent reporter as well as an astute observer. He reported that there was a trend toward socialization in Britain. Dr. Robert L. Novy, more or less a bystander at the time, says, "Dr. Luce was trying to warn us of the danger of such a trend developing here, unless we did something to meet the problem. But many mistook his statements and thought that he was advocating socialization."

Dr. Luce was a clear-thinking man with a gift for incisive speech. He was deeply shaken by the misunderstanding he encountered, and he often reacted, as Dr. Novy recalls, "like a fireball."

However, Dr. Marshall, the Committee's chairman, revealed a thorough and sympathetic understanding of the meaning of Dr. Luce's report. In his introductory talk, presenting the plan for Mutual Health Service, Dr. Marshall reiterated the Committee's loyalty to the four principles on which it had begun its work, adding:

"It has examined the available evidence concerning the operation, the defects, and merits of health insurance in other countries. As a result the conclusion has been reached that no system of health insurance now in existence completely conforms to the policies set forth. At the same time your Committee recognized the need of a more equitable distribution of the burdens of sickness and, through this, a wider distribution of the benefits of the medical services."

Thus Dr. Marshall succinctly summarized one of the major points in Dr. Luce's report, that while the British health insurance system was riddled with serious and dangerous shortcomings, it did not follow that these shortcomings were an inescapable part of any insurance system.

Dr. Marshall added:

"Finally, the *Committee wishes to emphasize that the profession must grasp the dragging reins of medical economics.* As great as is the need for a constructive program, it is no greater than the opportunity before the profession to publicly exhibit its ability and its willingness to act courageously and effectively in meeting the social and economic problems."

Dr. Frederick Warnshuis presented the plan for Mutual Health Service. It was to be a non-profit organization, and it was to provide health services at agreed costs to employed persons and to the families of employed persons.

Including the dependents of employed people marked a truly revolutionary departure from the prevailing practices among the commercial insurance companies. More, the plan provided for public representation on the Board.

The plan provided for medical and dental benefits in the home, office and hospital; as well as for "such services of medical specialists, nurses, pharmacists, laboratories and hospitals as may, in the opinion of the general practitioner, be necessary. . . ."

Hospital services included semi-private or ward bed, operating rooms, medicines, dressing, laboratory and other services "that may be provided in the hospital for a period of twenty-one days during any one year. For any illness requiring hospitalization for more than twenty-one but less than ninety days, the Mutual Health Service will pay 75 per cent of the per diem hospital charges." Special nurse services were provided for thirty days each year; visiting nurse services for sixty days. Drugs were to cost each member of the family 25 cents per prescription, the balance to be paid by Mutual Health Service.

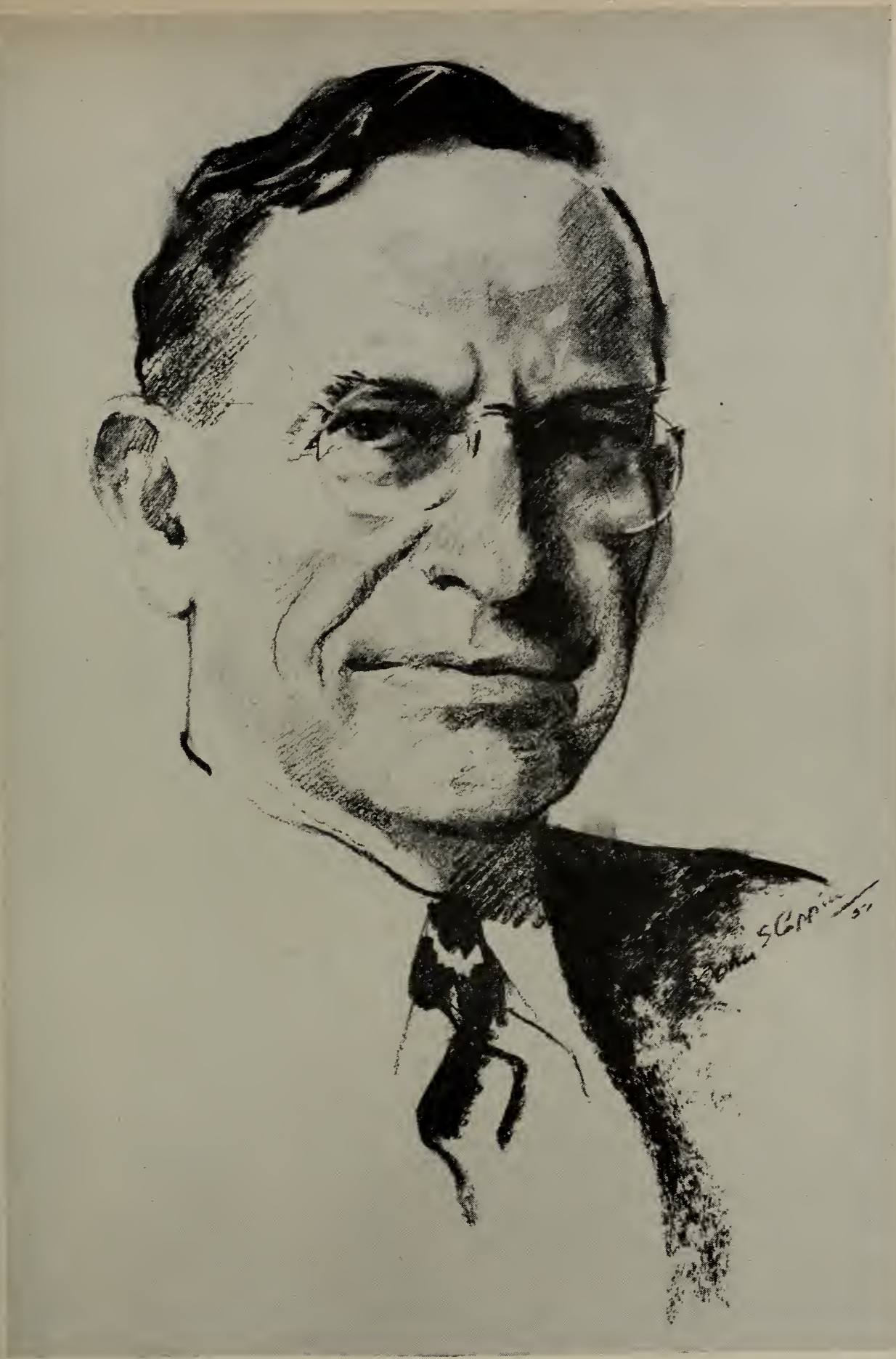
The annual costs of the services per person on the Family List were to be $27.88.

The House of Delegates passed a resolution approving the Committee's report and recommending further exploratory work for presentation to the House for further action.

Commenting on the all-inclusive benefits proposed by Mutual Health Service, Dr. Philip Riley, a member of the Committee, said nostalgically: "Of course, at that time, a private room in a hospital in Jackson was $5.00 a day!"

The resolution of approval, passed by the House of Delegates, left it up to the Committee to sound out employers and employes, and also to find the actuarial data necessary to justify its costs and benefits. The Committee's report recommended that the plan be adopted as an experimental project, "limited to one or more areas in the state." This also was no easy matter, the Committee was to find.

"In 1935," says Dr. Riley, "the Committee decided that we would like to try it out with one company. We



Andrew S. Brunk, M.D.

approached Consumers Power, in Jackson. We considered Consumers Power ideal because it operated in the whole state with the exception of Wayne County. We spent one whole morning with the organization. They were interested but they would not go along with the idea of payroll deductions.

"There was another meeting of the State Medical Society, in Battle Creek, in 1935. The Committee submitted another report and wanted to know what to do with it. We were all sick of being called Communists. The House of Delegates shelved the report, but the Committee was continued."

Developments were approaching a climax. The debate was becoming more heated. On November 20, 1935, the Committee on Medical Economics met under its newly appointed chairman, Dr. Ralph H. Pino.

5

Dr. Ralph Pino belongs to that breed of men who for a variety of reasons—and often without any specific reason at all—manage to develop a reputation for being "visionary." If Dr. Pino offers any justification for being called a "visionary" it is not because he is an impractical man. He is a successful practitioner in a highly technical branch of medicine. He has a number of activities besides medicine, from farming to the handicrafts, any one of which could ruin a really impractical person. Dr. Pino has the habit of being passionately impolitic in pursuit of objectives he considers important. In the field of medical politics, a man who would serve a fixed objective at the cost of every other consideration is a man strikingly possessed of discomfiting recklessness. He could not but shortly become known as visionary.

There is no question but that the movement toward prepayment within medical ranks had reached the stage that called for a man with some capacity for recklessness. Any dynamic historic development uses up the leaders it creates. Dr. Marshall and Dr. Luce had done their very important jobs. Such men as Dr. Haughey, Dr. A. S. Brunk and Dr. L. Fernald Foster were stabilizers and strong organization men. They gave the development the invaluable quality of continuity. But the movement at this point needed a gadfly.

"Dr. Pino had always been a crusader," says Dr. L. F. Foster. "He could have been a preacher. His speeches were sermons."

Dr. Novy says unequivocably: "Dr. Pino's enthusiasm carried the prepayment movement over the hump."

One might say that Dr. Pino was picked by the situation.

At the special meeting of the House of Delegates, on April 12, 1934, at Flint, the resolution approving the Mutual Health Service plan, proposed by the Committee on Medical Economics, was passed by a vote of 61 to 9. The debate which preceded gave the vote this significance: The leaders of Michigan's medical profession had accepted the insurance principle as the instrument for meeting the problem they faced. Dr. Marshall, Dr. Luce and the Committee on Medical Economics, had done a remarkable job. How to put the insurance principle to work was the problem.

The "how," in fact, posed a lot of problems. Actuarial data on hospital and medical insurance were non-existent. None of the doctors knew how to write an insurance contract, or had any experience in operating an insurance undertaking. Much of the opposition, and many of the reservations expressed by members of the County Medical Societies, could probably have been overcome in a short time if a practical program were offered; if Mutual Health Service could begin to do business. The lack of know-how, with the resulting lack of confidence, were the big obstacles. It was clear that the doctors had in the main undergone the necessary ideological transition. Most of them were worried about the practical problem.

Shortly after Dr. Pino became chairman, the name of the Committee was changed to the Committee on the Distribution of Medical Care. The change testified to the profound crystalization that had taken place in the minds of the doctors since Dr. Whittaker's resolution in 1931.

The Committee on the Distribution of Medical Care got to work under Dr. Pino to develop a proposal with the least possible number of bugs. One of Dr. Riley's memories casts an interesting light on the problem the Committee faced: "About 1938, Dr. Pino found an unemployed insurance man and brought him around. He was the fellow who wrote up our first policy."

Things now began to happen fast. On September 19, 1938, at the regular annual meeting of the Michigan State Medical Society, in the Book-Cadillac, Detroit, a report of Dr. Pino's committee on hospital and medical insurance, was adopted without opposition, but the Committee was instructed to give the matter further study. A spe-



L. Fernald Foster, M.D.

cial meeting of the House of Delegates was held on Sunday, January 8, 1939, to consider the Committee's final proposal.

Dr. Pino read the report, which dealt with:

1. A proposed Enabling Act, to be passed by the State Legislature, covering both hospital service and medical care.
2. The proposed by-laws of the corporation which the doctors would set up under the Enabling Act, with provisions for both hospital service and medical care.
3. The Articles of Incorporation, for the corporation to be set up by the Michigan State Medical Society, under the proposed Enabling Act.

The report contained schedules of proposed rates and benefits.

After a long discussion, the House approved the report in principle, but turned the matter over to the Council for action.

Less than two months later, on March 23, 1939, the Group Medical Care Enabling Bill, House Bill No. 215, was passed by the Michigan House of Representatives by a vote of 78 to 5, becoming Michigan Public Act No. 108 of 1939.

On September 18, 1939, at the 74th annual meeting of the State Medical Society, in the Pantlind Hotel, Grand Rapids, Dr. C. E. Umphrey presented the Council's fully developed medical service plan, entitled: "Michigan Medical Service." Trouble had been expected. The Michigan Medical Service Plan was actually presented the evening before in an informal way, with a half dozen of the Councillors taking turns. At the beginning of the meeting, Dr. Luce, President, urged that the House approve the work of the Council. After finishing the reading of the report, Dr. Umphrey moved "that the Council be empowered to complete the present plan entitled "Michigan Medical Service, and that the Council be empowered to put this Plan into operation." His motion was seconded by Dr. A. P. Biddle.

After a long discussion, the question was called for. Dr. Philip Riley, Speaker, put the motion to a vote with the words: "We are going to vote, and if you are not satisfied, forever hold your peace!"

The motion was carried by the record vote of 102 to 1.

6

While the doctors of Michigan were making history, the Department of Justice in Washington indicted officials of the American Medical Association and of the District of Columbia Medical Society for "conspiring" to hinder some doctors in the Nation's Capital from practicing in a group medical plan. Thus far, middle-of-the-road leaders in the American medical profession had hoped to develop a national health program on which the medical profession and the Federal government could co-operate. The action by the Department of Justice dimmed all hope of such a development.

Said Dr. Luce, who had spent so many years in laying the foundation for Michigan Medical Service:

"I, for one, feel that as a physician, personally, I have been indicted by the U. S. government. . . . The . . . reflection upon the integrity of the American Medical Association is considered by me as a reflection upon myself."

7

Michigan Medical Service began operations on March 1, 1940. As might have been expected, the first two years proved hectic.

First of all, the doctors found themselves far ahead of the public in the program they offered. Michigan Medical Service began by providing complete medical care, including services in the patient's home, the doctor's office and the hospital. On the basis of speculative calculation, since no actuarial data were available, the cost for full family protection was set at $4.50 a month. It was shortly discovered that the resulting income barely covered half the actual cost of the medical-surgical services rendered the members.

On top of that, public interest in the bargain price program was negligible.

A deficit began to develop. While the doctors had overwhelmingly endorsed the insurance principle, there had never been overwhelming confidence in the ultimate success, or even the practicality, of the undertaking. Now that troubles began to develop, those who had been skeptical but willing to go along, and many of those who had reservations, became openly critical.

Dr. Henry Carstens, first President of Michigan Medical Service, became the central figure in the drama which unfolded.

"Dr. Carstens seemed the logical man for the job of president," says Dr. Brunk. "He was chairman of the Council of the State Medical Society. He had life insur-



PHILIP RILEY, M.D.

ance experience. His father was a prominent Detroit surgeon who had been head of the medical department of a life insurance company. When his father died, Dr. Carstens took his place as head of the medical department. In the early period we couldn't have found anyone as good. He was conservative and exacting. But there came a time when extreme conservatism became an obstacle. In particular he was uncompromising with the opposition doctors. He became the target of the ill will of the group of doctors that opposed the whole effort. He made bitter enemies, but his entry into military service eventually led to a necessary change in leadership.

Actually, Dr. Carstens had stepped into a delicate situation. Dr. Riley recalls that at the special meeting of the House of Delegates in the Statler, Detroit, on Sunday, January 8, 1939, doctors from Genesee County led the debate in opposition to the establishment of Michigan Medical Service. Dr. Brunk remembers:

"The spark plug of the opposition was Genesee County. And the doctors in Ingham and Oakland Counties were allied with the Genesee County group. The Genesee County Medical Society, as I recall, employed an attorney and threatened to sue the insurance commissioner to restrain him from permitting us to operate Michigan Medical Service. . . .

"From the beginning, Flint doctors refused to accept Michigan Medical Service checks. When the suit was threatened, many of us began to worry about the damage to our undertaking. I called Dr. Henry Cook, former president, M.S.M.S., and asked him to bring a delegation to the Statler, in Detroit, to discuss the situation. Cook came with about a dozen people. It was a summer evening. It became evident early that there was no basis for compromise."

Dr. Haughey recalls:

"The meeting at the Statler with the Flint delegation started at four in the afternoon and ended between three and four in the morning. They were frank discussions. We found out where they stood and then did the job the only possible way. . . ."

The hectic discussions which lasted until all hours of the night became more frequent and more hectic as troubles increased for Michigan Medical Service. Everyone was tired after these meetings and no one could think straight. Unfortunately, Dr. Carstens had lost his popularity and became the target of criticism.

Not all of the participants in the confusion of those early days are agreed upon Dr. Carstens. Dr. L. Fernald Foster feels that "Dr. Carstens was the pioneer who made it possible to start Michigan Medical Service. He worked night after night and devoted his whole time to his job." In his opinion, Dr. Carstens was the victim of circumstances.

It was in 1941, when Michigan Medical Service was getting deeper and deeper in the red, that Dr. Robert L. Novy was elected to the Board of Directors. He was elected without his knowledge at a meeting of the Board at the Pantlind Hotel, Grand Rapids, September 17, 1941. He was nominated by Dr. Simpson and Dr. Ratigan. Although he was not notified of the next meeting, he found out about it and attended it. When he got there, he took the stand that the meeting was not legal since the members of the Board had not been properly called by Dr. Carstens. Somehow, Dr. Novy had become identified with the opposition. In the intensely emotional situation, his strong, positive stand against the haphazard and often arbitrary way in which the Board's business was being conducted won him immediate attention.

Shortly, Michigan Medical Service was $500,000 in debt and had about $2,000 in the bank. The office of the Insurance Commissioner found it necessary to intercede. As Dr. Haughey recalls the events:

"The Insurance Commissioner came in and said he would have to close us up. We asked for a three-month leeway. He said he would give us the leeway if we put somebody in charge he could trust. We asked for Jay Ketchum, who was Deputy Insurance Commissioner. We made arrangements to borrow Jay for six months."

That is how Dr. Novy, the future President of Michigan Medical Service, and Jay C. Ketchum, its future Executive Vice President, stepped upon the scene. The times were certainly inauspicious. The extremists in the opposition were negotiating to turn the whole thing over to a Detroit commercial insurance agency.

By many of the opposition, seemingly determined one way or another to end the experiment, Ketchum was regarded as "the undertaker sent to bury Michigan Medical Service and Dr. Novy as the man selected to read the funeral sermon."

As it happened, under the leadership of these two newcomers, and the allowance of increased premium rates, Michigan Medical Service was shortly to become the nation's outstanding Blue Shield Plan—the first to enroll a million members and the first to enroll two million members!



Robert L. Novy, M.D.

8

The doctors who had participated in the hectic deliberations that took place during the critical years of 1941 and 1942, have the definite impression that Michigan Medical Service was saved by almost a miracle. Actually, while there was a great deal of criticism and even more dissatisfaction, there appears to have been an even stronger desire to go on with the effort. This desire found perhaps less voice than the dissatisfactions, but one feels that it was there, that it was mute but strongly felt in the hearts of the majority. Otherwise, Michigan Medical Service could not have survived. A few stalwarts refused to give up.

Between March 1, 1940, and April, 1941, Michigan Medical Service met all payments in full according to its Schedule of Benefits. After April 1, 1941, it was forced to make a 20 per cent pro-ration on all payments. With the proposed General Motors contract, the impression spread among many doctors that that would further decrease their income. This was particularly true in those counties where the bulk of the patients were General Motors employes.

The situation made action necessary in regard to the question of an income ceiling on the General Motors contract, as well as other questions it had raised. On October 21, 1941, a special meeting of the Board of Directors was held to consider this problem. On October 31, a recessed special meeting of the Board took this problem up again. Walter Reuther was present. While Dr. Cook, speaking for the Genesee, Ingham and Oakland County doctors, said that most of them would refuse to participate further in Michigan Medical Service, Walter Reuther showed a co-operative attitude.

When asked by Dr. Pino if labor would go along with the obviously necessary increase in rates, Reuther said that labor would be happy to help and that "we appreciate that doctors have economic problems."

The meeting lasted until the early hours of the morning. A motion by Dr. Pino that subscription rates be raised about 25 per cent was passed unanimously. Dr. Novy moved that the officers be directed to meet with the employe groups to discuss the problem of readjusting the income ceiling, and of extra charges to the above-income groups. This, too, was carried unanimously.

Ketchum was present. Michigan Medical Service was passing through a crisis, but it was very much alive and fighting every moment. Reuther's attitude heartened everybody. Says Dr. Novy, "Reuther appeared twice before the meetings and his urging us to continue had its effect."

At another special meeting of the Board of Directors, on November 5, 1941, further progress was made, with Reuther present, in working out the details of the General Motors contracts, and in shaking down the general Michigan Medical Service contract to more practical terms. Dr. Pino suggested that Ketchum be interviewed for the job of Executive Secretary.

On November 17, it was announced that Jay C. Ketchum had been hired as Executive Director to succeed John D. Laux. Before he took his position with Michigan Medical Service, Laux was assistant to Dr. Roscoe Leland, head of the AMA Bureau of Economics. By all accounts he had proved a competent and hard-working Executive Director. The trend was, however, toward a complete change in executive personnel and Laux bowed graciously out of the picture.

In June, 1942, the complete medical care program was discarded, and one substituted offering only limited or surgical protection.

On July 22, 1942, Dr. Carstens resigned to go into active service in the United States Army as Colonel in the Medical Corps. Dr. Brunk and Dr. Haughey moved at the Executive Committee meeting that Dr. Novy be suggested to the Board of Directors for the office of President until the next annual meeting. The motion was carried. Dr. Haughey, who seconded the motion, says: "Dr. Novy was one of our worst critics. They darn near threw me off the Board of Directors when I suggested that they make him president." But the Board of Directors, on Thursday, September 3, 1942, at the Hotel Olds, Lansing, made Dr. Novy President. On October 31, at the annual meeting of the Board, Dr. Novy was unanimously re-elected president for a full term. Dr. Haughey, who had been vice-president since the establishment of Michigan Medical Service, was re-elected again, and still is vice president.

"For talking too much in Grand Rapids," is Dr. Novy's explanation, "I was elected president."

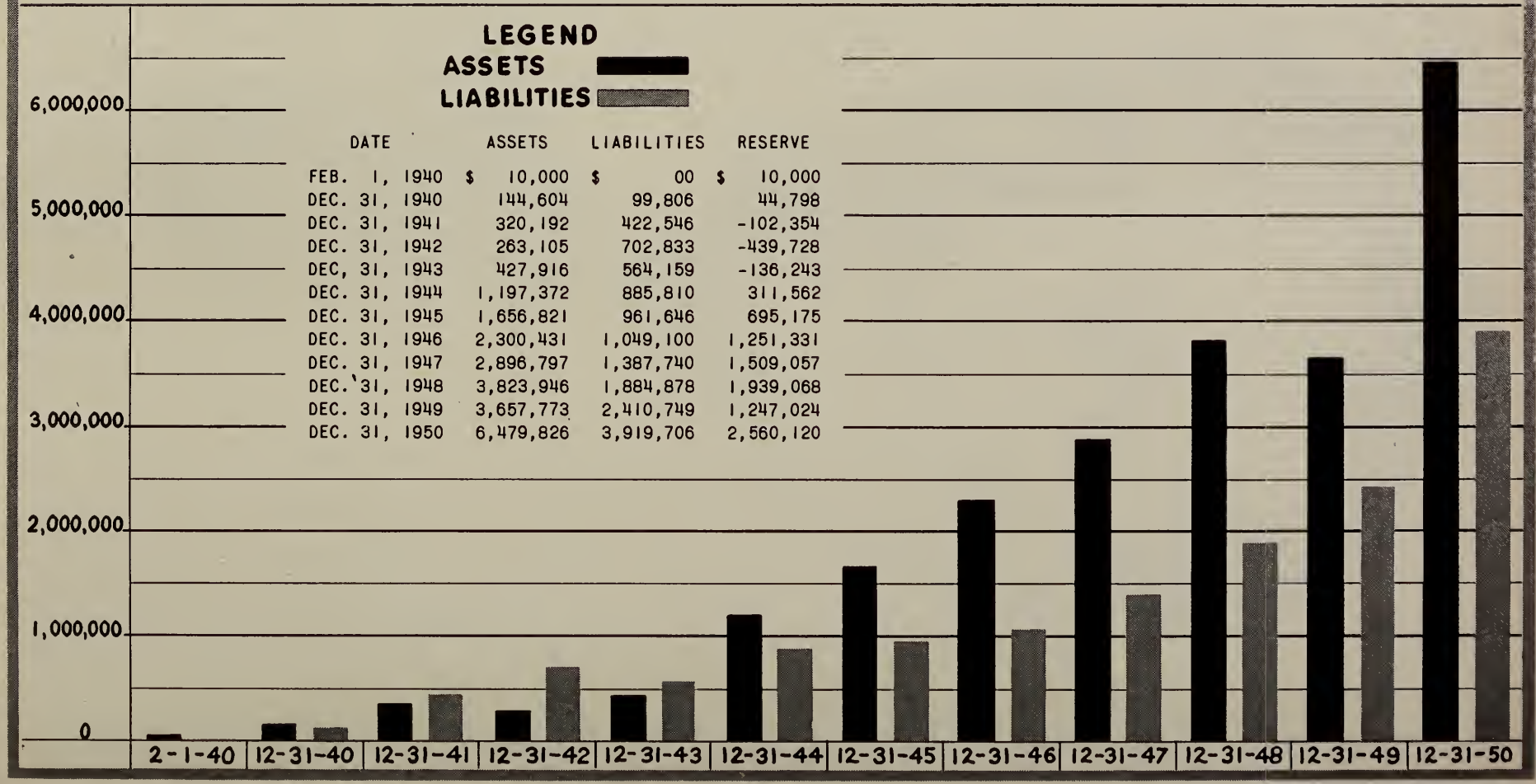
Dr. Novy became the inevitable candidate for the office of the presidency for four reasons:



JAY C. KETCHUM

MICHIGAN MEDICAL SERVICE

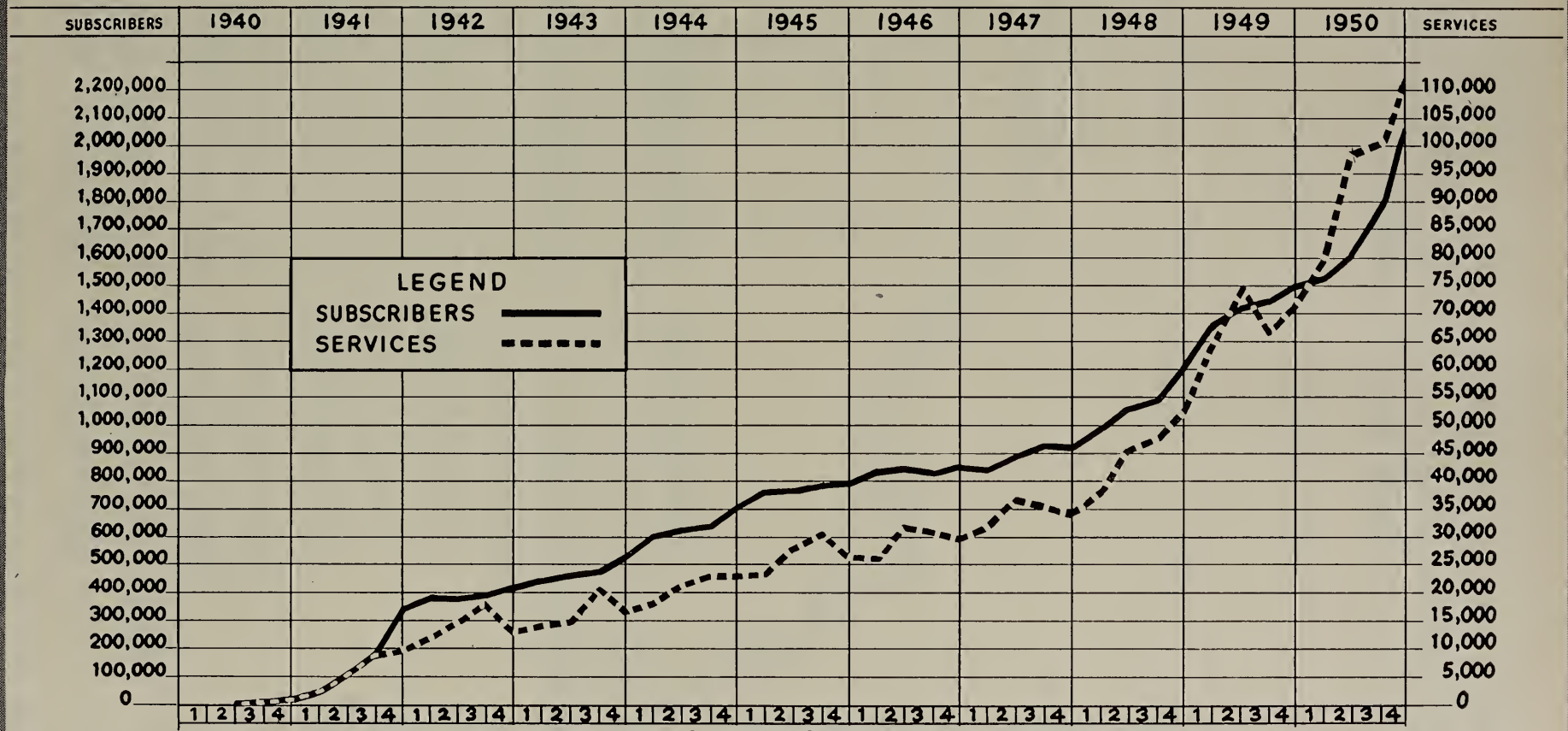
ASSETS AND LIABILITIES
1940 TO DECEMBER 31, 1950



DATE	ASSETS	LIABILITIES	RESERVE
FEB. 1, 1940	$ 10,000	$ 00	$ 10,000
DEC. 31, 1940	144,604	99,806	44,798
DEC. 31, 1941	320,192	422,546	-102,354
DEC. 31, 1942	263,105	702,833	-439,728
DEC, 31, 1943	427,916	564,159	-136,243
DEC. 31, 1944	1,197,372	885,810	311,562
DEC. 31, 1945	1,656,821	961,646	695,175
DEC. 31, 1946	2,300,431	1,049,100	1,251,331
DEC. 31, 1947	2,896,797	1,387,740	1,509,057
DEC. 31, 1948	3,823,946	1,884,878	1,939,068
DEC. 31, 1949	3,657,773	2,410,749	1,247,024
DEC. 31, 1950	6,479,826	3,919,706	2,560,120

MICHIGAN MEDICAL SERVICE

NUMBER OF SUBSCRIBERS AND NUMBER OF SERVICES



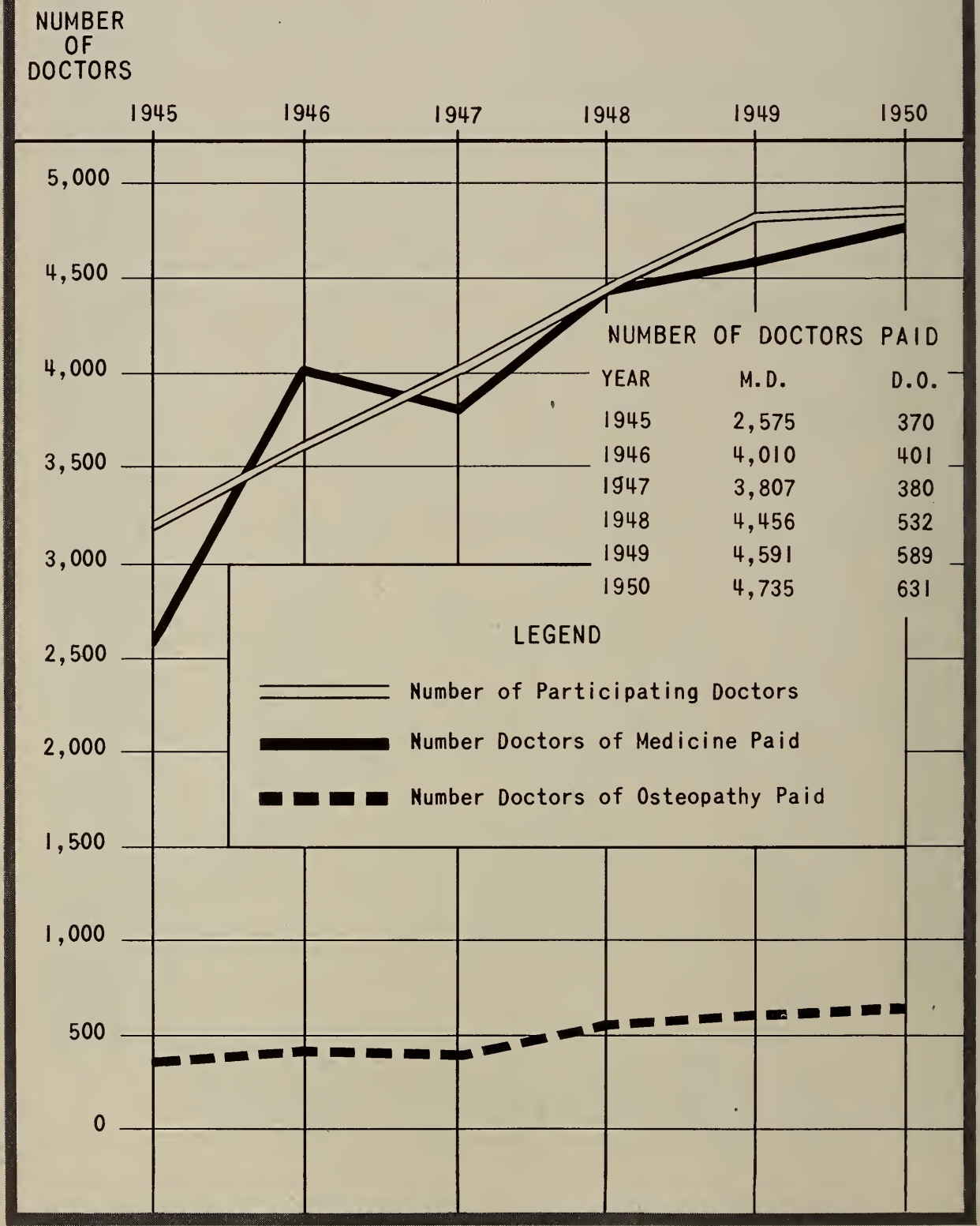
PER CENT OF SUBSCRIBERS INCOME USED FOR ADMINISTRATIVE EXPENSE



1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
20.05%	15.52%	15.44%	11.69%	11.43%	11.32%	11.96%	10.99%	11.81%	12.30%	10.53%

MICHIGAN MEDICAL SERVICE

NUMBER OF PARTICIPATING DOCTORS AND DOCTORS PAID
1945 THROUGH 1950



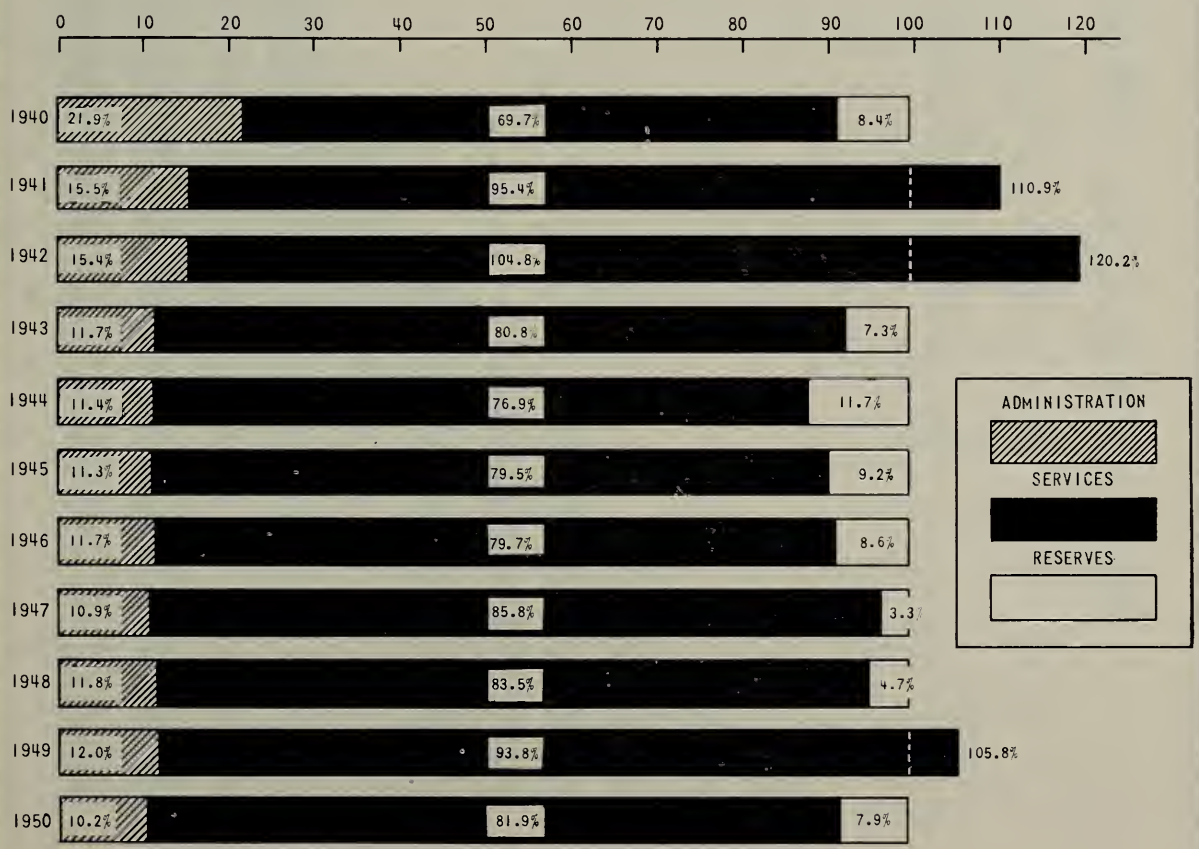
MICHIGAN MEDICAL SERVICE

PERCENTAGE OF INCOME USED FOR OPERATING EXPENSES, PAYMENTS TO DOCTORS AND RESERVES

YEARS 1940 THRU 1950

Year	Earned Income	Operating Expenses	Payments to Doctors	Gain or Loss *
1940	$ 363,438.12	$ 79,488.96	$ 253,303.00	$ 30,646.16
1941	1,110,302.10	172,073.80	1,059,048.17	120,819.87 Dr.
1942	2,455,552.38	378,293.54	2,573,110.82	495,851.98 Dr.
1943	3,367,290.86	393,766.17	2,720,071.45	253,453.24
1944	4,517,774.26	515,921.69	3,475,263.35	526,589.22
1945	5,420,350.85	610,907.47	4,308,285.18	501,158.20
1946	6,424,966.57	748,961.92	5,119,848.80	556,155.85
1947	7,861,842.69	859,970.75	6,744,145.04	257,726.90
1948	9,028,492.77	1,061,839.00	7,536,643.74	430,010.03
1949	11,836,621.39	1,420,581.91	11,108,083.18	692,043.70 Dr.
1950	16,563,929.37	1,693,198.87	13,557,634.83	1,313,095.67

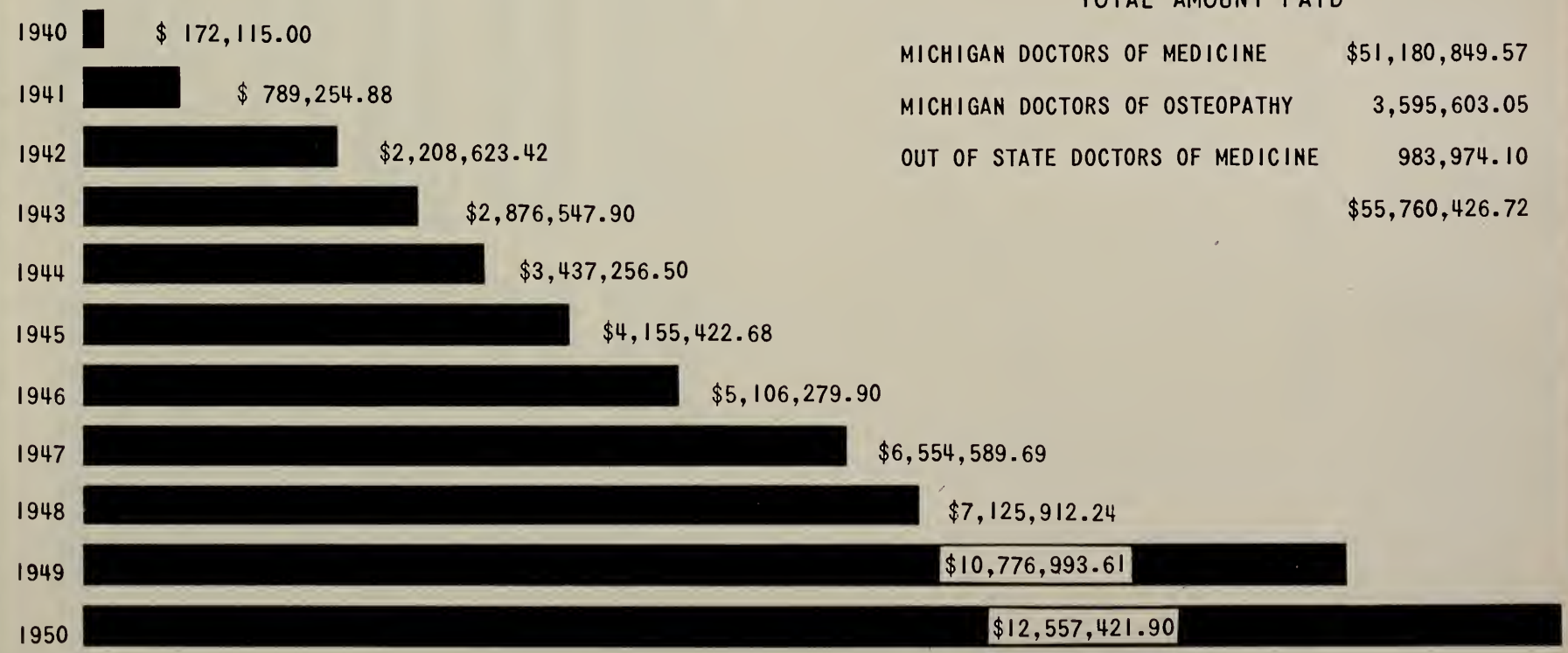
* These figures present the increase or decrease in reserves by years.



MICHIGAN MEDICAL SERVICE

Paid to Doctors For Services

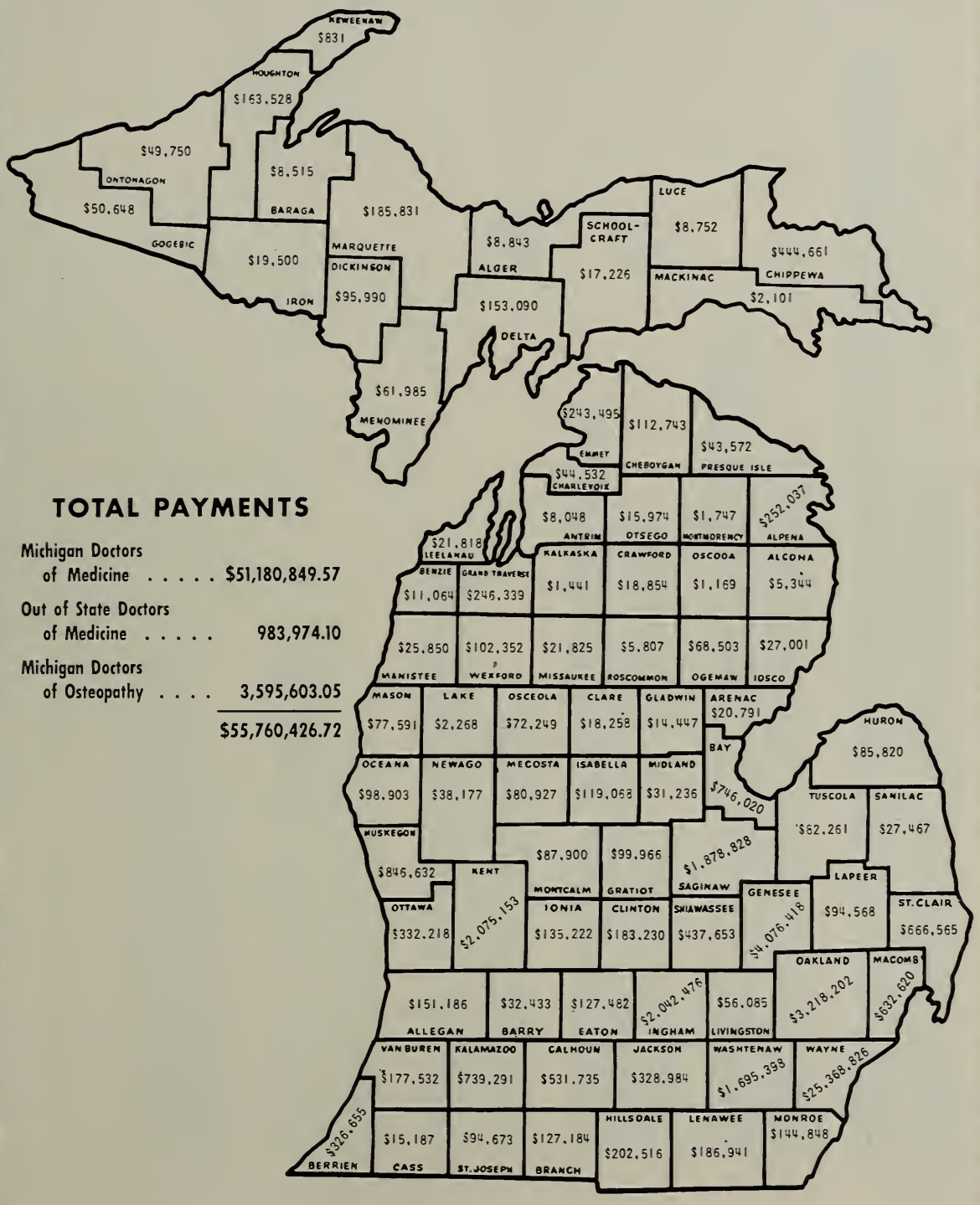
By Years—1940 to December 31, 1950



TOTAL AMOUNT PAID	
MICHIGAN DOCTORS OF MEDICINE	$51,180,849.57
MICHIGAN DOCTORS OF OSTEOPATHY	3,595,603.05
OUT OF STATE DOCTORS OF MEDICINE	983,974.10
	$55,760,426.72

MICHIGAN MEDICAL SERVICE

Payments to Doctors of Medicine
By County of Residence—March 1, 1940 to December 31, 1950



TOTAL PAYMENTS

Michigan Doctors of Medicine	$51,180,849.57
Out of State Doctors of Medicine	983,974.10
Michigan Doctors of Osteopathy	3,595,603.05
	$55,760,426.72

1. The doctors trusted him. He was one of their own kind, understood their problems, their thinking and their apprehensions. Even those who remembered him as "their worst critic" trusted him on fundamental matters, shortly became his strong supporters.

2. He showed a real capacity for getting to the heart of things. But he did not talk down to the doctors. He was learning with them, fighting with them. When an explanation was in order he was patient. He could be firm and determined; even obstinate. But he understood the importance of achieving understanding. He did not go in for short-cuts. He showed real executive skill.

3. There fell to him a good share of the popularity and affection enjoyed by his father, Dr. Frederick G. Novy, whom so many of Michigan's doctors got to know when he was Professor of Bacteriology at Ann Arbor. The name "Novy" had a magic.

4. He had the insight to get at once to the heart of the problem as the doctors saw it. They were afraid that participating in Michigan Medical Service might tend to become compulsory; that there might be discrimination, with serious economic consequences against those who did not care to become participating physicians in the Plan. Dr. Novy assured them at once that there would be no compulsion. There would be no discrimination. He said that he would count on "moral" force, on the accumulating evidence of the social and moral value of Michigan Medical Service to the doctors, to convince each doctor of the advantages of being a participating physician. There would be no economic pressure and no economic reprisals. Because of his reputation and his personality, the doctors believed him.

Now Michigan Medical Service was pulling out of the hole. Within 27 months more than 350,000 persons were enrolled under the limited surgical contract. The jittery days were gone. In 1944 it repaid to all the doctors the 20 per cent that had been withheld since pro-rating was started in April, 1941.

"We sent the checks to the doctors who were in the Armed Services," Dr. Novy said. "Their getting the money was a surprise that brought us many letters and changed the attitude of many of them to favor Michigan Medical Service.

"One of the most surprising letters was from Dr. Carstens. He said that he had been expecting a letter saying that Michigan Medical Service had closed. He had not expected a check."

During June and July, 1944, Michigan Medical Service conducted a survey, involving interviews with nearly 5,000 people throughout Michigan, to determine the type of medical coverage the people wanted. Most showed little interest in medical services in the doctor's office or the patient's home.

In 1945, Dr. Novy had the pleasure of repaying the Michigan State Medical Society the original $10,000 borrowed to start Michigan Medical Service, plus an additional $7,544.45 borrowed at other times for other purposes. By the end of that year its enrollment stood at nearly 800,000 members, and it had a reserve of $695,175.

As has been noted before, one of the major sources of the troubles Michigan Medical Service ran into was the fact that its medical program was far ahead of what the people were prepared to accept. However, now that a real prepayment program had become available, public education began to catch up. Within a few years, Michigan Medical Service found it advisable to add medical care in the hospital to its purely surgical benefits. On September 1, 1948, Michigan Medical Service certificates were liberalized to provide surgical care in doctors' offices and hospital out-patient departments, in cases involving Blue Shield fees of $20.00 or more. A year later the medical certificates were liberalized, increasing the number of days of care in the hospital from 30 to 120.

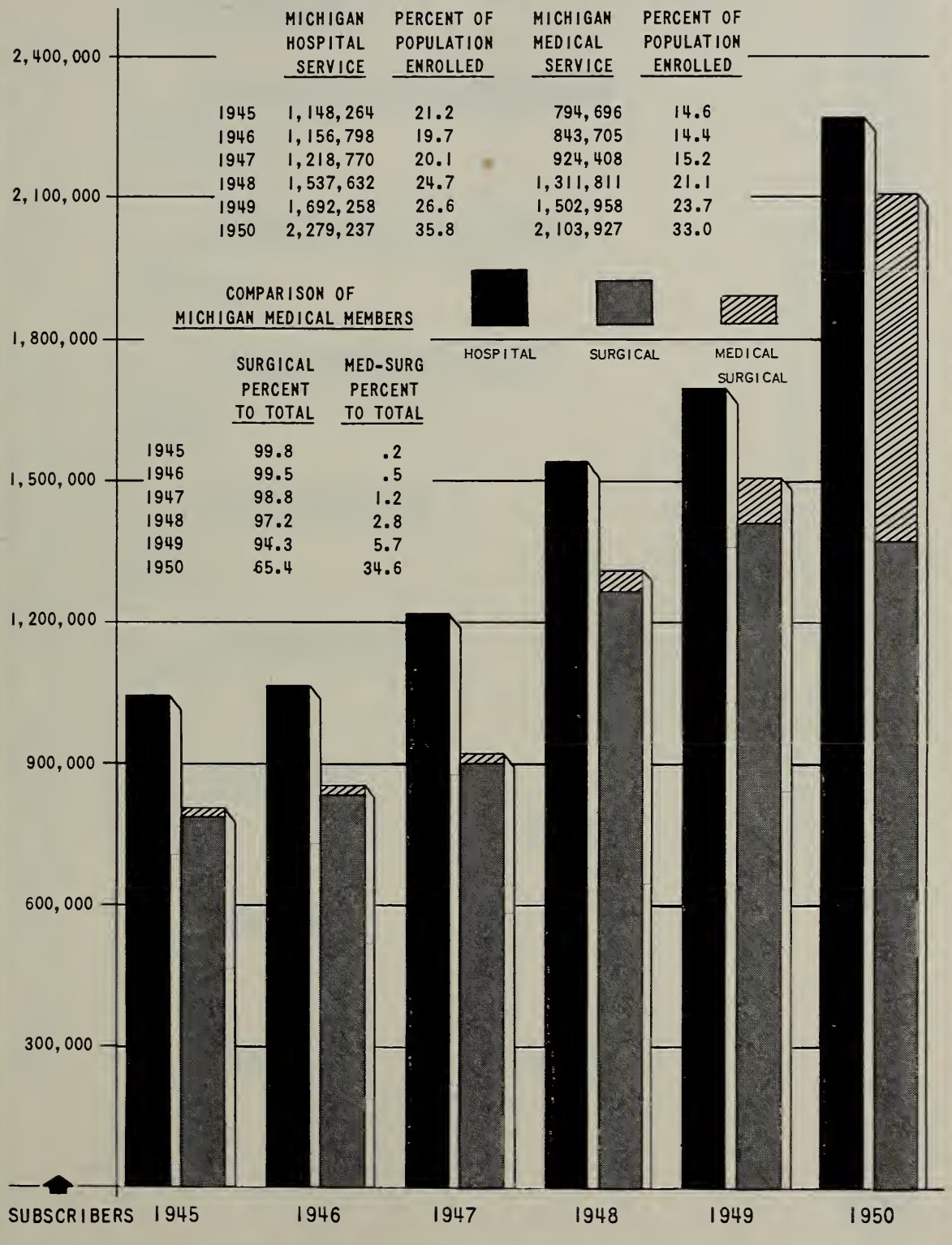
And in 1948, Michigan Medical Service won the Blue Shield Commission award for being the first Blue Shield Plan to enroll one million members.

Michigan Medical Service operates as a companion organization to Michigan Hospital Service, the Blue Cross Plan, and until recently was commonly known within the state as Michigan Blue Cross rather than Blue Shield.

Subscribers to both Plans are enrolled simultaneously, and enrollment programs are mutually developed. The majority of subscribers to Blue Cross-Blue Shield are industrial and business employes, enrolled as groups in their places of

MICHIGAN BLUE CROSS-BLUE SHIELD ENROLLMENT

COMBINED GROWTH BOTH PLANS



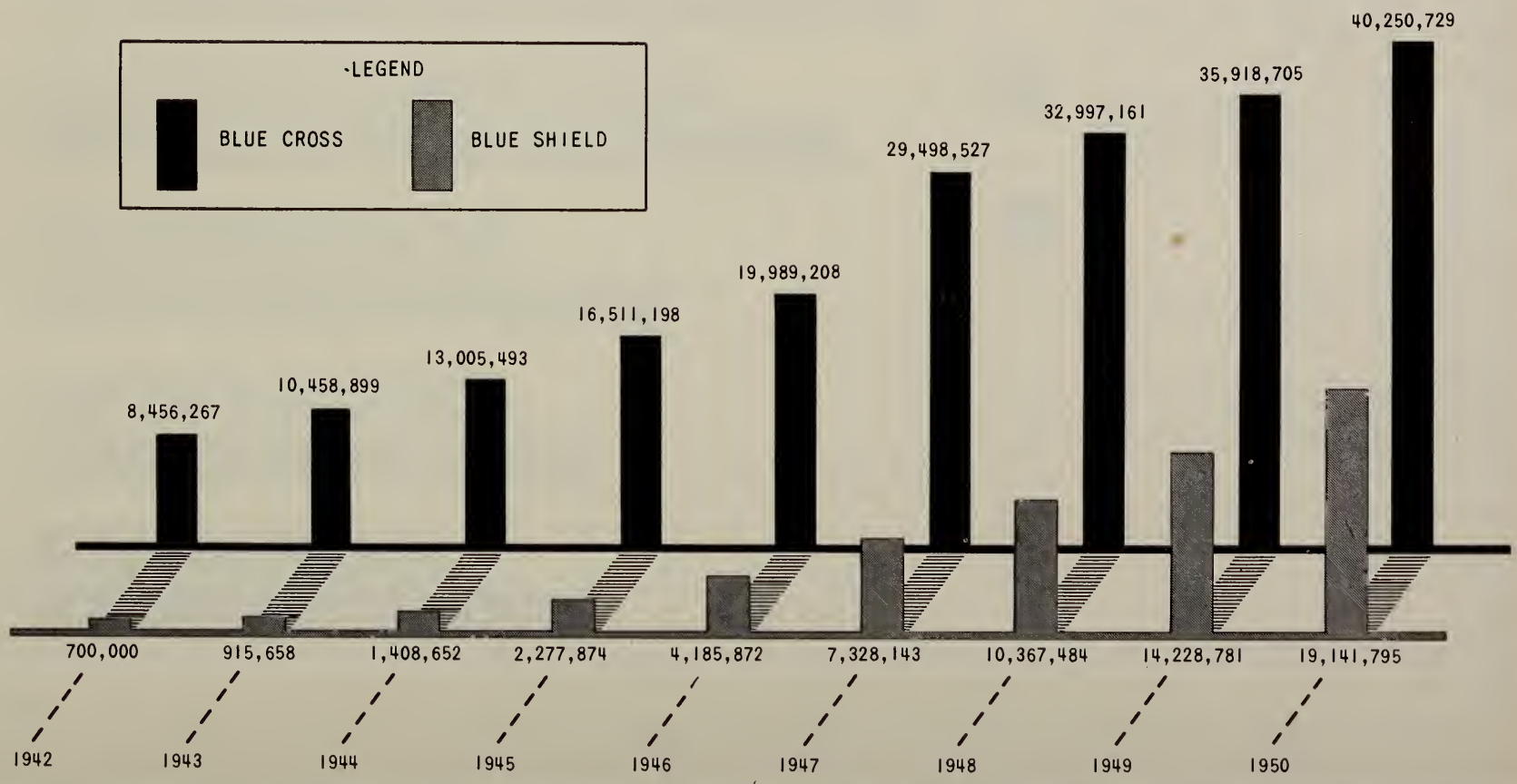
	MICHIGAN HOSPITAL SERVICE	PERCENT OF POPULATION ENROLLED	MICHIGAN MEDICAL SERVICE	PERCENT OF POPULATION ENROLLED
1945	1,148,264	21.2	794,696	14.6
1946	1,156,798	19.7	843,705	14.4
1947	1,218,770	20.1	924,408	15.2
1948	1,537,632	24.7	1,311,811	21.1
1949	1,692,258	26.6	1,502,958	23.7
1950	2,279,237	35.8	2,103,927	33.0

COMPARISON OF MICHIGAN MEDICAL MEMBERS

	SURGICAL PERCENT TO TOTAL	MED-SURG PERCENT TO TOTAL
1945	99.8	.2
1946	99.5	.5
1947	98.8	1.2
1948	97.2	2.8
1949	94.3	5.7
1950	65.4	34.6

NATIONAL BLUE CROSS-BLUE SHIELD ENROLLMENT

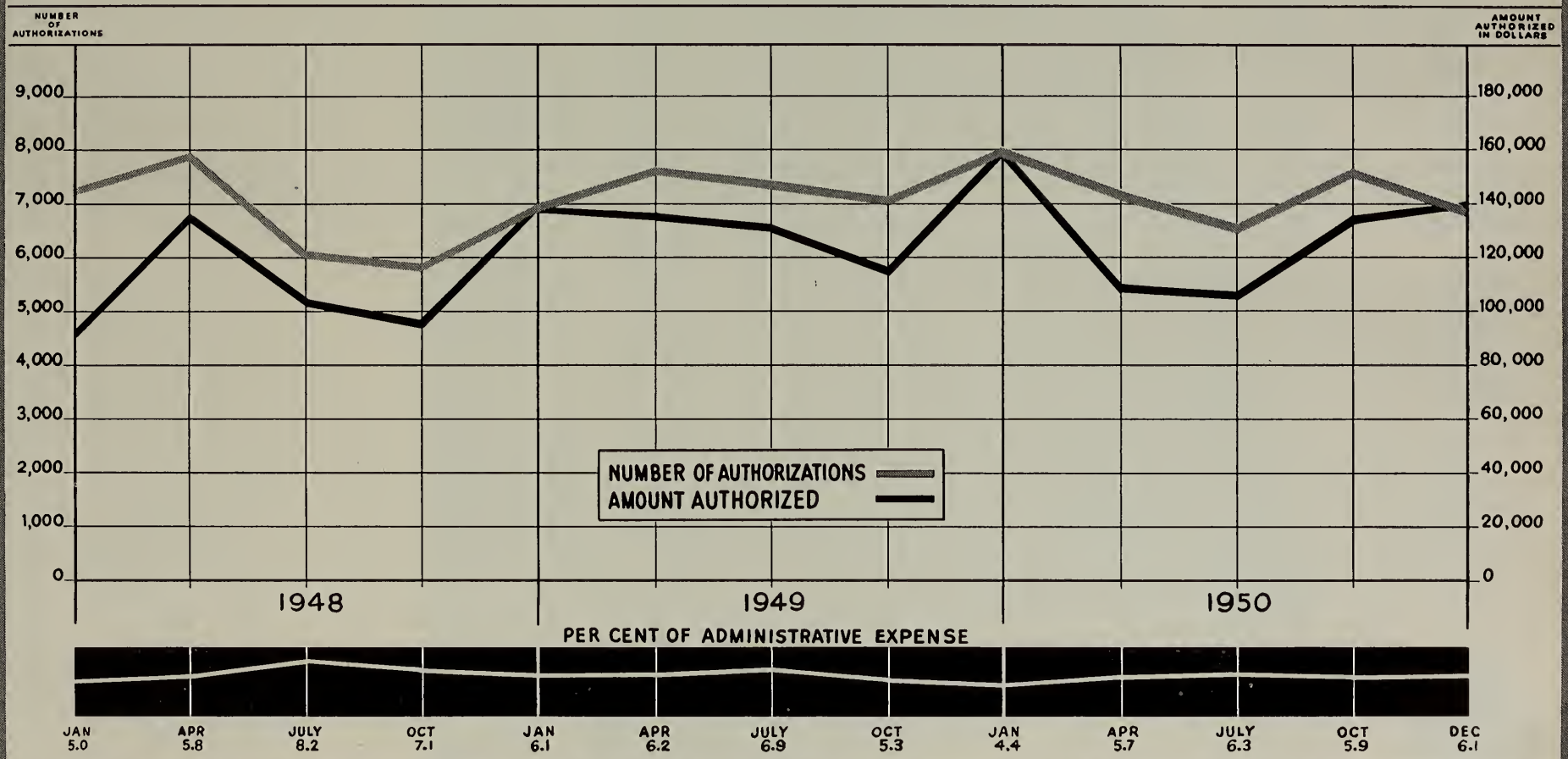
COMBINED GROWTH ALL PLANS



MICHIGAN MEDICAL SERVICE

VETERAN'S PROGRAM

JANUARY 1, 1948 TO DECEMBER 31, 1950



employment. Other programs include the enrollment of farmers through their Farm Bureaus, farmer co-operatives and the Farm Security Administration. A program for enrolling professional people is handled through such organizations as the Michigan State Medical Society, the Michigan State Dental Society, the Michigan State Bar Association and the Michigan State Pharmaceutical Association.

A program of Community Enrollment, conducted on a state-wide basis, makes the two services available to the self-employed and others who do not belong to established groups.

Michigan Medical Service was the first Blue Shield Plan to establish a special program for providing veterans with service-connected disabilities with "home-town" care. Through this program, thousands of veterans in Michigan have been able to go to their own physicians rather than to veterans' hospitals for examination or treatment. Michigan Medical Service, by arrangement with the Veterans Administration, pays the doctors for services to veterans in the same way it pays for services rendered to its regular subscribers. It is reimbursed by the Veterans Administration. This system has not only helped relieve the great pressure on the veterans' facilities, but has made it easier for the veterans to get the care they need.

Nationally, all Blue Shield Plans have leaned on Michigan Medical Service for statistics. For a long time Michigan Medical Service had the only actuarial statistics on prepayment that were to be had. Michigan Medical Service helped the other Plans, as well as the Blue Shield Commission, with personnel as well as advice.

Since March 1, 1940, when it was established, until March 1, 1951, Michigan Medical Service paid out for medical and surgical benefits to its members the total of $58,158,228.90.

9

Today, more than one-third of all the men, women and children in Michigan are members of Blue Shield. A few months ago it won the special Blue Shield award for being the first Blue Shield Plan in the country to enroll two million members. Recently it added a $5,000 yearly family income ceiling contract to the $2,500 income ceiling contract it had been selling right along. The two contracts make it possible for the majority of the residents of Michigan to secure medical and surgical coverage on a service benefits basis.

More than 82 per cent of Michigan's doctors have become participating doctors in the Plan.

There is no organized opposition. There is practically no opposition in the active sense.

Michigan Medical Service has become the doctors' credit agency for financing the sale of their services to all those who cannot conveniently pay for them either out of current income or savings.

Says Dr. Haughey:

"The profession has almost completely accepted Blue Shield and Blue Cross. There is little opposition without real justification even in Flint. The educational job has in good part been accomplished. It has been accepted by the profession as wholeheartedly as anything that has ever been presented to them."

Dr. L. Fernald Foster is an organization man and one whose talent and special business it is to keep his ear close to the ground. It is his opinion that "despite some gripes, the doctors are aware of the tremendous job they have done and are proud of it." About some of the problems disturbing relations between the doctors and the hospitals, he says, "If we can keep going long enough I think that the problems will solve themselves."

Looking back, the rise of Michigan Medical Service has a profound meaning not only to each doctor but to each citizen. If each profession, each social group, when confronted by a new problem, will meet the problem through the democratic processes of debate, adjustment and creative response, then democracy will survive. Should we fail, the problems will dictate their own solutions; they will, through the blind force of necessity, find their own mechanism for solving themselves. This mechanism will be the government. Those who would communize us by design have their blind and too often irrepressible accomplices in those who achieve the same end by default.

The doctors of Michigan have built not for themselves but for the nation, as the doctors of all the other states know.

And looking back, the efforts of the many men whose names are on the record, and the efforts of the many more men whose names are not on the record, become significant as parts of ourselves, parts of our own growth.

Future Home of
BLUE CROSS — BLUE SHIELD



PICTURED above is the new home of the first Blue Shield Plan in the *World* to enroll 2,000,000 members—the Michigan Plan—*your* Plan, Doctor. The building, situated two blocks east of the new Detroit City-County Building, consists of five stories and a basement and has 132,546 square feet of floor space. This space is not only adequate for our present operation, but will also permit the necessary expansion required by our continual growth. Michigan Medical Service expects to occupy the building jointly with Michigan Hospital Service sometime after April, 1953.

Looking forward to future occupancy, MMS in 1950 purchased a parking lot within one-half block of the new Home Office Building. This lot is large enough to provide ample parking facilities for both employes and visitors.

MSMS HOUSE OF DELEGATES—1951

Delegates and Alternates

(Names of Alternates appear in Italics)

ALLEGAN
L. F. Brown, M.D., 133 E. Allegan, Otsego
E. B. Johnson, M.D., 144 Brady, Allegan

ALPENA-ALCONA-PRESQUE ISLE
E. S. Parmenter, M.D., Alpena
H. J. Burkholder, M.D., Alpena State Savings Bank, Alpena

BARRY
A. B. Gwinn, M.D., City Bank Bldg., Hastings
Stewart Lofdahl, M.D., Nashville

BAY-ARENAC-IOSCO
O. J. Johnson, M.D., 207 N. Walnut, Bay City
W. S. Stinson, M.D., 101 W. John, Bay City
R. E. Fisher, M.D., 900 N. Jackson, Bay City
D. J. Mosier, M.D., 101 W. John, Bay City

BERRIEN
D. W. Thorup, M.D., 610 Fidelity Bldg., Benton Harbor
F. A. Rice, M.D., 318 N. Fourth, Niles

BRANCH
H. J. Meier, M.D., 87 W. Pearl, Coldwater
N. J. Walton, M.D., 61 E. Chicago, Quincy

CALHOUN
H. C. Hansen, M.D., 417 Post Bldg., Battle Creek
S. T. Lowe, M.D., 1009 Security Bank Bldg., Battle Creek
J. W. Hubly, M.D., 1407 Security Bank Bldg., Battle Creek
L. R. Keagle, M.D., 196 North Ave., Battle Creek

CASS
S. L. Loupee, M.D., Dowagiac
U. M. Adams, M.D., Marcellus

CHIPPEWA-MACKINAC
B. T. Montgomery, M.D., 309 Ashmun, Sault Ste. Marie
D. C. Howe, M.D., 300 Court, Sault Ste. Marie

CLINTON
F. W. Smith, M.D., Ovid
J. G. Kirker, M.D., Fowler

DELTA-SCHOOLCRAFT
W. A. LeMire, M.D., 1106 First Ave., Escanaba
A. H. Miller, M.D., 904 Wisconsin, Gladstone

DICKINSON-IRON
D. R. Smith, M.D., Iron Mountain
L. E. Irvine, M.D., 422 Third St., Iron River

EATON
G. C. Stucky, M.D., Charlotte
Paul Engle, M.D., Olivet

GENESEE
J. E. Livesay, M.D., 621 Mott Foundation Bldg., Flint
F. D. Johnson, M.D., 202 Paterson Bldg., Flint
C. W. Colwell, M.D., 706 Citizens Bank Bldg., Flint
L. M. Bogart, M.D., 1008 Genesee Bank Bldg., Flint
F. W. Baske, M.D., 923 Maxine St., Flint
F. A. Barbour, M.D., 1439 Mott Foundation Bldg., Flint
H. H. Hiscock, M.D., 1315 Mott Foundation Bldg., Flint
E. P. Vary, M.D., 608 First National Bldg., Flint

GOGEBIC
H. A. Pinkerton, M.D., Newport Hospital, Ironwood
A. C. Gorrilla, M.D., 210 S. Suffolk, Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE
D. G. Pike, M.D., 876 E. Front, Traverse City
C. E. Lemen, M.D., 216½ E. Front, Traverse City

GRATIOT-ISABELLA-CLARE
M. G. Becker, M.D., Edmore
J. L. Rottschafer, M.D., Alma

HILLSDALE
L. W. Day, M.D., Jonesville
O. G. McFarland, M.D., North Adams

HOUGHTON-BARAGA-KEWEENAW
T. P. Wickliffe, M.D., 1167 Calumet Ave., Calumet
A. B. Aldrich, M.D., 325 Harris Ave., Houghton

HURON
C. W. Oakes, M.D., Harbor Beach
C. A. Scheurer, M.D., Pigeon

INGHAM
O. B. McGillicuddy, M.D., 1816 Olds Tower, Lansing
H. W. Wiley, M.D., 137 N. Larch, Lansing
F. L. Troost, M.D., 4341 W. Delhi, Holt
J. M. Wellman, M.D., 301 Seymour Ave., Lansing
E. J. Robson, M.D., 215 N. Walnut, Lansing
K. H. Johnson, M.D., 1116 Olds Tower, Lansing

IONIA-MONTCALM
W. L. Bird, M.D., Greenville
M. A. Hoffs, M.D., Lake Odessa

JACKSON
J. D. Van Schoick, M.D., Hanover
J. W. Rice, M.C., Commander USNR, Cecil Field, NAAS, Jacksonville, Fla.
E. H. Corley, M.D., 1211 W. Franklin, Jackson
G. L. Otis, M.D., 1405 National Bank Bldg., Jackson

KALAMAZOO
W. A. Scott, M.D., 252 E. Lovell, Kalamazoo
R. W. Shook, M.D., 611 American National Bank Bldg., Kalamazoo
R. J. Armstrong, M.D., 605 Hanselman Bldg., Kalamazoo
F. C. Ryan, M.D., 507 S. Burdick, Kalamazoo
A. F. DeGroat, M.D., 458 W. South St., Kalamazoo
W. B. Crane, M.D., 420 S. Rose, Kalamazoo

KENT
A. V. Wenger, M.D., Loraine Bldg., Grand Rapids
W. B. Mitchell, M.D., Medical Arts Building, Grand Rapids
J. W. Logie, M.D., Metz Building, Grand Rapids
L. C. Carpenter, M.D., Metz Building, Grand Rapids
G. W. DeBoer, M.D., 220 Medical Arts Building, Grand Rapids
A. A. VanSolkema, M.D., 953 E. Fulton, Grand Rapids
W. R. Torgerson, M.D., Metz Building, Grand Rapids
Torrance Reed, M.D., Ashton Building, Grand Rapids
S. L. Moleski, M.D., 528 Medical Arts Building, Grand Rapids
L. O. Grant, M.D., 420 Medical Arts Building, Grand Rapids
R. S. Van Bree, M.D., 204 Loraine Bldg., Grand Rapids
C. E. Farber, M.D., 408 Metz Building, Grand Rapids

LAPEER
D. J. O'Brien, M.D., Lapeer
C. R. Zolliker, M.D., 240 Main, Imlay City

LENAWEE
R. E. Dustin, M.D., 309 N. Union, Tecumseh
G. H. Wynn, M.D., 147 E. Church, Adrian

LIVINGSTON
H. C. Hill, M.D., Howell
T. A. Barton, M.D., Howell

LUCE
M. A. Surrell, M. D., Newberry
T. W. Thompson, M.D., Newberry

MACOMB
Sydney Scher, M.D., 67 Cass Ave., Mt. Clemens
Oscar Stryker, M.D., Court House, Mt. Clemens

MANISTEE
E. C. Hansen, M.D., 78 Maple St., Manistee
L. W. Switzer, M.D., Manistee Savings Bank Bldg., Manistee

MARQUETTE-ALGER
N. J. McCann, M.D., First National Bank Bldg., Marquette
A. S. Narotzky, M.D., Ishpeming

MASON
E. B. Boldyreff, M.D., Custer
A. F. Boon, M.D., Ludington

MECOSTA-OSCEOLA-LAKE
Paul Ivkovich, M.D., Reed City
G. H. Yeo, M.D., 126 Maple, Big Rapids

MEDICAL SOCIETY OF NORTH CENTRAL COUNTIES
S. A. Stealy, M.D., Box 485, Grayling

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J. R. Heidenreich, M.D., Daggett
J. N. De Wane, M.D., 1001 Sheridan, Menominee

MIDLAND
H. L. Gordon, M.D., Dow Chemical Co., Midland
H. H. Gay, M.D., Dow Chemical Co., Midland

MONROE
T. A. McDonald, M.D., 7 E. Front, Monroe
J. P. Flanders, M.D., 31 Washington, Monroe

MUSKEGON
N. W. Scholle, M.D., Anderson Building, Muskegon Heights
R. D. Risk, M.D., 1160 Ransom, Muskegon
D. R. Boyd, M.D., 1735 Peck, Muskegon
Louis Le Fevre, M.D., 450 W. Western, Muskegon

NEWAYGO
J. P. Klein, M.D., 16 W. Sheridan, Fremont
B. L. Masters, M.D., 43 W. Main, Fremont

NORTHERN MICHIGAN MEDICAL SOCIETY
J. R. Rodger, M.D., Bellaire
Isaac Terr, M.D., Charlevoix

OAKLAND
P. E. Sutton, M.D., 629 Washington Square Building, Royal Oak
H. A. Furlong, M.D., 932 Riker Bldg., Pontiac
R. H. Baker, M.D., 1110 Peoples State Bank Bldg., Pontiac
J. M. Markley, M.D., 849 W. Huron, Pontiac
J. D. Green, M.D., 311 Wabeek Bldg., Birmingham
O. R. MacKenzie, M.D., 404 Pontiac Trail, Walled Lake
E. B. Cudney, M.D., 216 Oneida, Pontiac
E. C. Rupp, Jr., M.D., 202 Crane, Royal Oak

OCEANA
M. G. Wood, M.D., Hart
W. G. Robinson, M.D., Hart

ONTONAGON
W. F. Strong, M.D., Ontonagon
H. B. Hogue, M.D., Ewen

OTTAWA
William Westrate, 11 W. 8th, Holland
D. C. Bloemendaal, M.D., 351 W. Michigan, Zeeland

SAGINAW
J. E. Manning, M.D., 112 N. Michigan, Saginaw
J. P. Markey, M.D., 628 Gratiot, Saginaw
J. W. MacMeekin, M.D., 1213 N. Michigan, Saginaw
J. W. James, M.D., 418 W. Genesee, Saginaw

SANILAC
James Cripps, M.D., Marlette
Neil Muir, M.D., Croswell

SHIAWASSEE
C. L. Weston, M.D., 1306 N. Washington, Owosso
C. J. Richards, M.D., Durand

ST. CLAIR
J. F. Beer, M.D., South Riverside Dr., St. Clair
W. H. Boughner, M.D., P.O. Box 286, Algonac

ST. JOSEPH
R. A. Springer, M.D., Klinger Lake, Sturgis
J. P. Sheldon, M.D., 104 S. Clay, Sturgis

TUSCOLA
L. L. Savage, M.D., Caro
H. L. Nigg, M.D., Caro

VAN BUREN
W. R. Young, M.D., Lawton
A. H. Steele, M.D., Paw Paw

WASHTENAW
O. K. Engelke, M.D., 720 E. Catherine, Ann Arbor
R. W. Teed, M.D., 215 S. Main, Ann Arbor
P. S. Barker, M.D., University Hospital, Ann Arbor
B. M. Harris, M.D., 220 Pearl, Ypsilanti
H. A. Miller, M.D., Saline
P. N. Brown, M.D., Ypsilanti State Hospital, Ypsilanti
A. N. Waldron, M.D., 1130 Hill, Ann Arbor
J. L. Wilson, M.D., University Hospital, Ann Arbor
V. M. Zerbi, M.D., 1711 Stamford, Willow Run

WAYNE
Arch Walls, M.D., 17201 W. McNichols, Detroit 19
E. D. Spalding, M.D., 10 Peterboro, Detroit 1
E. H. Fenton, M.D., 15125 Grand River, Detroit 27
J. J. Lightbody, M.D., 501 David Whitney Bldg., Detroit 26
R. L. Novy, M.D., 858 Fisher Bldg., Detroit 2
K. B. Babcock, M.D., 4160 John R., Detroit 1
G. C. Penberthy, M.D., 1515 David Whitney Bldg., Detroit 26

E. A. Osius, M.D., 901 David Whitney Bldg., Detroit 26
F. A. Weiser, M.D., 4162 John R., Detroit 1
W. W. Babcock, M.D., 868 Fisher Bldg., Detroit 2
E. C. Texter, M.D., 7457 Gratiot, Detroit 13
C. L. Candler, M.D., 20040 Mack Ave., Grosse Pointe Woods 30
W. B. Cooksey, M.D., 62 W. Kirby, Detroit
J. G. Molner, M.D., 334 Bates, Detroit 26
Douglas Donald, M.D., 7815 E. Jefferson, Detroit 14
D. C. Beaver, M.D., 432 E. Hancock, Detroit 1
O. A. Brines, M.D., 1512 St. Antoine, Detroit 1
C. I. Owen, M.D., 4160 John R., Detroit 1
E. G. Krieg, M.D., 1842 David Whitney Bldg., Detroit 26
C. D. Benson, M.D., 1515 David Whitney Bldg., Detroit 26
R. A. Johnson, M.D., 7815 E. Jefferson, Detroit 14
G. T. McKean, M.D., 1515 David Whitney Bldg., Detroit 26
H. F. Dibble, M.D., 1313 David Whitney Bldg., Detroit 26
W. S. Reveno, M.D., 951 Fisher Bldg., Detroit 2
L. J. Bailey, M.D., 620 Vinewood, Birmingham
R. F. Fenton, M.D., 15125 Grand River, Detroit 27

HAVE YOU MADE YOUR HOTEL RESERVATIONS?

Michigan State Medical Society

86th Annual Session

Grand Rapids, September 26-27-28, 1951

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant.

Committee on Hotels, Michigan State Medical Society,
c/o E. J. Brunette, Secy.
Pantlind Hotel, Grand Rapids, Michigan

Please make hotel reservation(s) as indicated below:

Hotel.....(1st choice)

Hotel.....(2nd choice)

.....Single Room(s)

.....Double Room(s) for.....persons

.....Twin Bedded Room(s) for.....persons

Arriving September.....hour.....A.M.....P.M.

Leaving September.....hour.....A.M.....P.M.

(Names and addresses of all applicants including person making reservation.)

Name	Address	City	State
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Date..... Signature.....

Address..... City.....

C. K. Hasley, M.D., 1429 David Whitney Bldg., Detroit 26
L. T. Henderson, M.D., 13038 E. Jefferson, Detroit 14
H. J. Kullman, M.D., VA Hospital, Dearborn
M. A. Darling, M.D., 673 Fisher Bldg., Detroit 2
D. I. Sugar, M.D., 13120 Broadstreet, Detroit
W. L. Brosius, M. D., Harper Hospital, Detroit
L. S. Fallis, M.D., Henry Ford Hospital, Detroit
R. V. Walker, M.D., 1255 David Whitney Bldg., Detroit 26
J. E. Lofstrom, M.D., 410 Kales Bldg., Detroit 26
E. D. King, M.D., 5455 W. Vernor, Detroit 9
D. H. Kaump, M.D., Providence Hospital, Detroit 8
L. J. Morand, M.D., 641 David Whitney Bldg., Detroit 26
E. A. Bicknell, M.D., 13641 Wyoming, Detroit 21
L. R. Leader, M.D., 1129 David Whitney Bldg., Detroit 26
H. B. Fenech, M.D., 324 Professional Bldg., Detroit 1
A. H. Price, M.D., 62 W. Kirby, Detroit
R. C. Rueger, M.D., 9149 E. Jefferson, Detroit 14
H. F. Raynor, M.D., 1340 Macabees Bldg., Detroit 2
Louis Jaffe, M.D., 1605 David Broderick Tower, Detroit 26
H. E. Bagley, M.D., 12922 W. Warren, Dearborn
M. L. Lichter, M.D., 2900 Oakwood Blvd., Melvindale
D. A. Young, M.D., 14807 W. McNichols
A. E. Price, M.D., 313 David Whitney Bldg., Detroit 26
J. A. Witter, M.D., 344 Glendale, Detroit 3
K. M. McColl, M.D., 18520 E. Warren, Detroit
W. S. Carpenter, M.D., 1317 David Whitney Bldg., Detroit 26
Sidney Adler, M.D., 872 Fisher Bldg., Detroit 2
P. J. Waltz, M.D., 16127 Woodward, Detroit 3
E. G. Cochrane, M.D., 12805 Hamilton, Detroit 3
E. F. Dittmer, M.D., 14320 E. Jefferson, Detroit 15
V. G. Chabut, M.D., 206 W. Dunlap, Northville
Raphael Altman, M.D., 1052 Maccabees Bldg., Detroit 2
J. A. Kasper, M.D., Bon Secours Hospital, Grosse Pointe 30
E. H. Lauppe, M.D., 1650 David Whitney Bldg., Detroit 26
E. F. Lutz, M.D., 13-204 General Motors Bldg., Detroit 2
E. C. Long, M.D., 2626 Rochester, Detroit 6
J. E. Croushore, M.D., 573 Fisher Bldg., Detroit 2
S. A. Zukowski, M.D., 6626 Van Dyke, Detroit 13
J. H. Schlemer, M.D., 13826 Dexter, Detroit 6
Saul Rosenzweig, M.D., 2114 David Broderick Tower, Detroit 26
J. D. Fryfogle, M.D., 655 Fisher Bldg., Detroit 2
S. V. Goryl, M.D., 9953 E. Forest, Detroit 13
J. E. Hauser, M.D., 671 Fisher Bldg., Detroit 2
K. L. Swift, M.D., 869 Fisher Bldg., Detroit 2
R. M. Athay, M.D., Wayne County General Hospital, Eloise
B. A. Sage, M.D., 1013 Haigh, Dearborn
C. S. Ratigan, M.D., 22276 Garrison, Dearborn
N. D. McGlaughlin, M.D., 2312 Biddle, Wyandotte
E. A. Wishropp, M.D., 227 Kenwood Ct., Grosse Pointe
Max Blaine, M.D., 654 Maccabees Bldg., Detroit 2
J. C. Fremont, M.D., 1202 David Whitney Bldg., Detroit 26
R. G. Swanson, M.D., 936 Alter Rd., Detroit 15
L. P. Heath, M.D., 1457 David Whitney Bldg., Detroit 26
S. G. Murphy, M.D., 603 E. Forest, Detroit 1
C. J. Williams, M.D., 15324 E. Jefferson, Detroit 30
R. D. Tupper, M.D., 15101 W. Seven Mile, Detroit 19
E. J. Hammer, M.D., 16616 Mack Ave., Detroit 24
F. P. Rhoades, M.D., 970 Maccabees Bldg., Detroit 2

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"*Bronchodilators (Antispasmodics).* Aminophyllin is the most effective drug in this [xanthine] series. . . . Rectally, in suppositories or solution, it is more effective than by oral administration and is useful when employed two or three times daily in the prolonged [asthmatic] attack. . . ."

Feinberg, S. M.: Asthma—Present Status of Therapy, Chicago M. Soc. Bull. 51:1062 (June 18) 1949.

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For Rectal Administration

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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

To determine the incidence of simple goiter among Michigan school children, a survey has been undertaken in four counties of the state.

Co-operating in the study are the Iodized Salt Committee of the Michigan State Medical Society, the Michigan Department of Health, the Nutrition Advisory Committee to the State Health Commissioner, local health departments, local schools and practicing physicians.

The throats of approximately 70,000 school children in Houghton, Wexford, Midland and Macomb counties will have been examined by physicians employed by the Michigan Department of Health by the time school closes. The counties range from areas having the most iodine in ground water to those having the least. They are the counties in which the initial goiter survey was made in 1924. As a result of the initial study which showed that half of Michigan children of school age were affected with simple goiter, the Michigan State Medical Society, the Michigan Department of Health and the salt manufacturers co-operated in placing iodized salt on Michigan's grocers' shelves and advocating its use for control of simple goiter.

Subsequent survey indicated that the use of iodized salt was controlling the incidence of simple goiter. The current survey is expected to show whether or not goiter is being controlled at the present time.

A series of seven leaflets dealing with the introduction of new foods in the infant's diet has just been released by the Michigan Department of Health and is available to physicians of the state.

The infant feeding series covers food sources of vitamin C, fruits, vegetables, cereals, meats, eggs and simple desserts. Each one-page leaflet contains practical suggestions on the preparation of one food for addition to the infant's milk diet. Each has space for the physician's notes. The leaflets are designed to be given to mothers one at a time, as the particular food is to be added to the infant's diet.

The leaflets have the approval of the Child Welfare Committee of the Michigan State Medical Society. Supplies of the leaflets can be secured from the local health departments or from the Section of Nutrition of the Michigan Department of Health.

Dr. Pearl Kendrick, internationally known for her work in developing a whooping cough vaccine, has been granted leave of absence from the Michigan Department of Health to become a resident lecturer in the School of Public Health, University of Michigan. She will teach public health laboratory practice in the Department of Epidemiology of the School of Public Health of the University beginning with the fall term.

Dr. Kendrick, an Associate Director of the Division of Laboratories, has been in charge of the Western Michigan Section of the Laboratories (Grand Rapids) since it was established in 1926. She will maintain a continuing professional relationship with the Michigan Department of Health while on leave.

Dr. Kendrick recently completed two world health organization assignments—in England and in Colombia, Chile and Brazil—to help laboratories solve their problems in production of whooping cough vaccines.

While the Michigan Department of Health, because of budget restrictions, was unable to conduct a ragweed pollen survey in the state last year, a summary of the preceding five years pollen incidence has been compiled. It will be published in the (May) Vacation Issue of *Michigan Public Health* and reprinted for the assistance of those who seek haven from pollen in Michigan. For copies of the reprint address the Michigan Department of Health, Lansing 4, Michigan.

Dr. Fanny Kenyon, Associate Chief of the Section of Maternal and Child Health, Division of Local Health Administration, has been elected Delegate at Large to the National Health Council, organization of 29 national health groups including the American Medical Association and the American Public Health Association. Dr. Kenyon is national safety chairman of the Business and Professional Women's Clubs.

John Hepler, Director of the Division of Engineering of the Michigan Department of Health, is the new president of the Michigan Engineering Society.

Requests for health education films from the Film Loan Library of the Michigan Department of Health continually increase. Some requests for the use of films are received a year in advance of the showing date. The showing during the first two months of 1951 drew 19,000 more viewers than during the same months a year earlier. Almost 69,000 Michigan people saw films from the Michigan Department of Health in 1,223 showings during February.

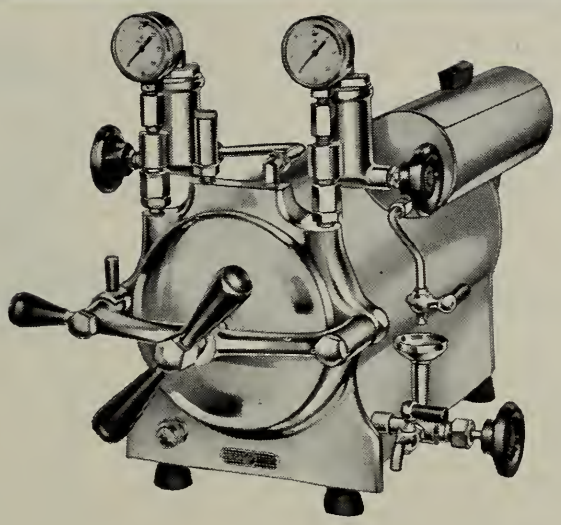
Services of the Michigan Department of Health's Vision and Hearing Consultants are now being scheduled for the school year 1951-52. Schools or Boards of Education which wish the services should contact their local health departments.

Short courses to train locally employed persons to do initial vision or hearing screening will be held during the summer, through the co-operation of the teachers training institutions and the Michigan Department of Health.

E. J. Fatchett has been appointed acting director of the Lenawee County Health Department to serve until a full-time medical director has been appointed.

AUTOCLAVE STERILIZATION ALWAYS THE SAFEST . . .

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The new, fast Pelton FL-2 is a scientifically-designed, precision-built autoclave. It uses the exact safe, fast principles of large hospital sterilizers: double boiler, air discharge valve, reservoir-condenser to convert steam to distilled water for re-use in boiler (no steam discharge in room). solid bronze safety door, positive door lock and safety catch, fully automatic.

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MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

DON'T MISS de KRUIF'S DOCTOR ARTICLE.—Paul de Kruif has a fine article, entitled "Your Doctor for a Friend," appearing in the May issue of the *Reader's Digest*. The article discusses the doctor-patient relationship, praises the medical profession for taking the initiative in setting up grievance committees and emergency night-call systems, and tells how the patient can help his doctor.

Reprints are being made available by our Department of Public Relations to state medical societies in quantities up to 500 for distribution through county medical societies.

—From AMA Secretary's Letter No. 180 of April 30, 1951.

MSMS ANNUAL SESSION

General Chairman: J. Duane Miller, M.D., Grand Rapids

Chairman of Scientific Press Relations Committee: C. A. Payne, M.D., Grand Rapids

Chairman of House of Delegates Press Relations Committee: J. E. Livesay, M. D., Flint

The American Academy of General Practice study requirements are 200 hours every three years, 150 of which can be made up by attendance at national, state, and local medical society scientific meetings and regular hospital staff clinical sessions; the remaining fifty hours must be for attendance at formal study courses.

Sixteen average hour credits will be given for attendance at the Michigan State Medical Society Annual Session, September 26-27-28, 1951; 12 for attendance at the Michigan Postgraduate Clinical Institute, March 12-13-14, 1952.

* * *

Maj. Gen. George Ellis Armstrong, who was guest speaker at the MSMS County Secretaries Conference on January 21, 1951, in Detroit, was recently nominated by President Truman to be Surgeon General of the Army.

Congratulations, General Armstrong.

* * *

Arthur C. Curtis, M. D., Ann Arbor, **Loren W. Shaffer, M.D.,** Detroit, and **Udo J. Wile, M.D.,** Ann Arbor, et al are authors of an original article "Penicillin Treatment of Syphilis" which appeared in JAMA of April 21, 1951.



Harry J. Loynd was elected President of Parke, Davis & Co., Detroit, on April 3, 1951, succeeding A. W. Lescohier, M.D., who retired from the post held since March, 1938.

Mr. Loynd, fifty-three, has been Vice President in charge of Domestic and Canadian Sales and Promotion since June, 1945.

Directors of the eighty-five-year-old company also elected Homer C. Fritsch as Executive Vice President, a new post, and Graydon L. Walker to Director of U. S. and Canadian Sales.

Dr. Lescohier will continue to serve on the Parke, Davis Board of Directors. Nathan T. Viger, Vice President, will remain as Chairman of the Executive Committee, Cleveland Thurber, Vice President, will serve as Vice Chairman, and Mr. Fritsch will act as Secretary.

* * *

J. S. DeTar, M.D., Milan, was elected Speaker of the Congress of Delegates of the American Academy of General Practice at its San Francisco Assembly March 20. He becomes a member of the Board of Directors of the Academy. Another Michigan member of the Board, who served as its Chairman the past year, is Arch Walls, M.D., of Detroit.

* * *

President C. E. Umphrey, M.D., Detroit, was toastmaster at the Annual Banquet of Wayne University Alumni Clinic Day, May 9, 1951.

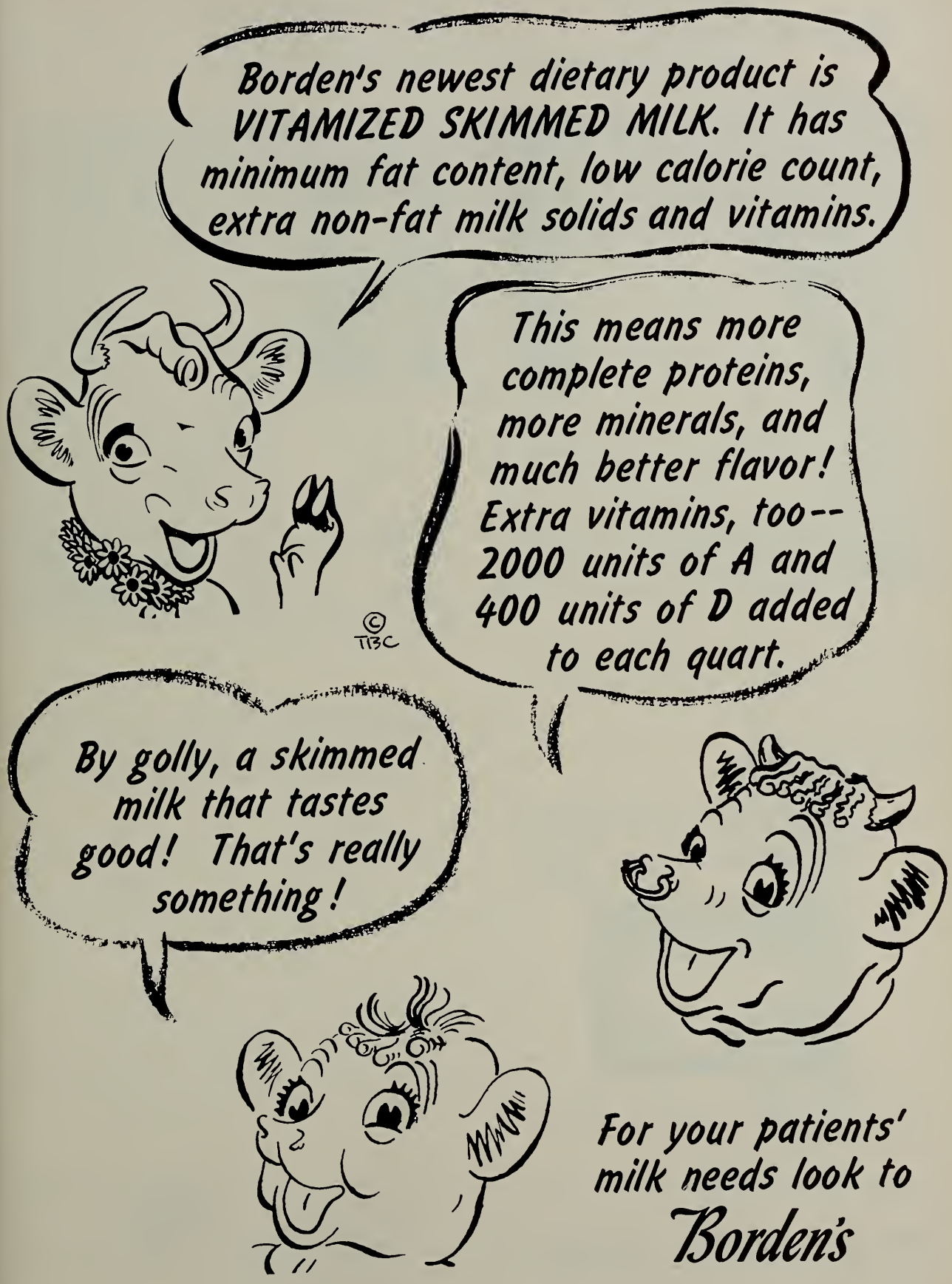
* * *

G. W. Slagle, M.D., Battle Creek, was guest speaker at the Annual Meeting of the Michigan Tuberculosis Association in Marquette on May 19. His subject was "Your Doctor and Freedom."

* * *

Home Nurse Training Program.—The Rural Medical Service Committee of the Michigan State Medical Society urges all private employers of nursing personnel to co-operate with the American Red Cross Home Nurse Training Program to the extent of granting one week's leave of absence for the purpose of becoming instructors in said program, and also to the end that a

(Continued on Page 670)


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This means more complete proteins, more minerals, and much better flavor! Extra vitamins, too-- 2000 units of A and 400 units of D added to each quart.
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(Continued from Page 668)

maximum recruitment of home nurses might be obtained. A special supplement to the American Red Cross Course now relates to Civil Defense. Individual doctors of medicine will gain much of value to themselves and to their patients by following the above recommendation.

* * *



E. H. Fenton, M.D., Detroit, newly elected secretary of the Wayne County Medical Society, was chosen to head the county secretaries of Michigan for the ensuing year. Dr. Fenton will be in charge of the Annual County Secretaries Conference to be held at the Book-Cadillac Hotel, Detroit, on Sunday, January 20, 1952.

* * *

Emergency Doctor Call System.—Medical societies in 329 communities of the nation have established night and emergency call systems—to guarantee that the people of the community can obtain a doctor at any time of the day or night, any day in the year, according to Louis H. Bauer, M.D., of Hempstead, New York, Chairman of the AMA Board of Trustees.

Dr. Bauer urges all county medical societies that have not yet established a formal plan for answering night and emergency calls to make this important service a major project during the next few months.

* * *

L. J. Gariepy, M.D., Detroit, was guest speaker at the 71st Annual Meeting of the Louisiana State Medical Society in New Orleans, May 8. His subject was "Non-Traumatic Rupture of the Common Duct."

* * *

Arthur M. Hume, M.D., ninety-one, of Owosso, the oldest living graduate of Wayne University, was one of the five recipients of the newly created Wayne University Alumni Awards, granted by Wayne on May 5 and presented by President David B. Henry. Dr. Hume, a graduate of 1881, has been practicing in Owosso since 1883. Dr. Hume is a Past President of the Michigan State Medical Society, a former Mayor of Owosso, former Chief Surgeon of the Ann Arbor Railroad, Past President of the Owosso Board of Education and for ten years a member of the Michigan State Board of Registration in Medicine. Dr. Hume is still practicing medicine in his home town.

* * *

A. C. Furstenberg, M.D., Ann Arbor, was named General Chairman of the 1951 "Fifth" Annual Michigan Rural Health Conference at a meeting of forty-one sponsors held in Lansing, February 19.

The Michigan Foundation for Medical and Health Education, through its President E. I. Carr, M.D., Lans-

(Continued on Page 672)

Dependable Protection

Depends on Correct Fitting



Only *47.1 per cent* of patients can be fitted with a size 70 or 75 diaphragm[1] (the most commonly prescribed sizes).

About *28 per cent* are fitted with sizes 80 and 85, and *18 per cent* with sizes 60 and 65.[1]

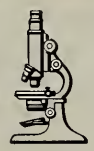
Thus, the need for correct fitting and a *wide range of diaphragm sizes* is evident. A diaphragm which is too small or too large will not block access to the cervix along the anterior wall.[2]

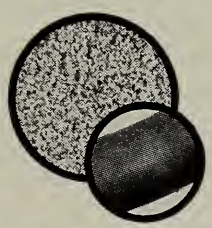
Ramses® Patented Flexible Cushioned Diaphragms are available in sizes ranging from 50 to 95 millimeters inclusive, in gradations of 5 millimeters.

Only the "RAMSES" Diaphragm is made with the comfort-assuring patented cushioned rim. Only the "RAMSES" Diaphragm is made with a velvet-smooth pure gum rubber dome.

The "RAMSES" Diaphragm is intended for use with "RAMSES" Vaginal Jelly to provide optimum protection for the patient.

1. Clark, Le M.: The Vaginal Diaphragm. St. Louis, C. V. Mosby Company, 1938; p. 43.
2. Dickinson, R. L.: Techniques of Conception Control. Boltimore, Willioms & Wilkins Compony, 1950; p. 17.





Unretouched photomicrograph of the dome (enlarged 10 diameters) and the rim (inset) of o "RAMSES" Flexible Cushioned Diophrogm.



Unretouched photomicrograph of the dome (enlarged 10 diameters) and the rim (inset) of a conventional-type diaphragm.

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- Office Equipment
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- Surgical Garments
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(Continued from Page 670)

ing, offered again to be financial sponsor of the Conference, to be held in October, 1951.

The Michigan Health Council, through its President J. S. DeTar, M.D., Milan, and its Executive Secretary E. H. Wiard, of Lansing, will implement the plans of the Committee on Arrangements for the 1951 Michigan Rural Health Conference.

* * *

The Kent County Medical Society and eighteen city and county health groups sponsored a panel presentation on the sex offender in Grand Rapids, on April 4. The program was planned for the sponsors by the Michigan Health Council which presented similar presentations before other Michigan counties last autumn.

* * *

The American Foundation of Occupational Health took over, as of May 1, the evaluation and approval of medical services in industry conducted by the American College of Surgeons for the past twenty years. The Foundation's Board will include three representatives each from the Industrial Medical Association and from the donors of the project; two each from outstanding business executives; and one each from the American College of Surgeons, the American College of Physicians, the American Medical Association, the American Academy of Occupational Medicine, the Association of American Medical Colleges, the Association of American Schools of Public Health, and the Industrial Hygiene Foundation.

Gaylord R. Hess, M.D., who has been in charge of the activity for the American College of Surgeons, will continue to direct it for the American Foundation of Occupational Health.

* * *

The Pan-Pacific Surgical Association's Fifth Congress will be held in Honolulu November 7-19, 1951. For program and information write President F. J. Pinkerton, M.D., Suite 7, Young Building, Honolulu 13, T.H.

* * *

Michigan's Foremost Family Physician, Lunette I. Powers, M.D., Muskegon, was featured in the *Journal of the American Medical Women's Association,* May, 1951, Number. A full-page eulogy, with photograph of Dr. Powers, was written by Marcelle Bernard, M.D., of New York City, Editor of "News of Women in Medicine."

* * *

The American Congress of Physical Medicine will hold its twenty-ninth Annual Scientific and Clinical Session at the Shirley-Savoy Hotel, Denver, September 4-5-6-7-8, 1951. For information and program, write the Congress at 30 N. Michigan Ave., Chicago 2, Illinois.

* * *

The National Society for Crippled Children and Adults announces that a cerebral palsy workshop will be conducted at Michigan State Normal College, Ypsilanti, and that National Society program consultants will lecture at training courses to be held at Wayne

(Continued on Page 674)



A Complete
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(Continued from Page 672)

University, Detroit, and Western Michigan College of Education, Kalamazoo.

For additional information write the Society at 11 South La Salle St., Chicago 3.

* * *

Eli Lilly and Company announces the completion of a 204-foot three-story extension wing of the Lilly Research Laboratory. This is the fourth addition since 1934 and doubles the Laboratory facilities of the Company. The scientific division has grown from one pharmacist and helper in 1894 to a staff of 532 people.

* * *

Mark Marshall, M.D., Ann Arbor, was MSMS representative at the April 23 Conference on Rehabilitation of Older Handicapped Workers, held at the Rackham Center, Ann Arbor.

* * *

Otto T. Mallery, Jr., M.D., has been appointed Director of the University of Michigan's new Institute of Industrial Health, made possible by a recent $1,500,000 gift from General Motors Corporation.

* * *

The Foundation of the American Society of Plastic and Reconstructive Surgery, Inc. offers junior and senior awards for original contributions in plastic surgery. The winning essays will appear on the program of the Society's Annual Meeting to be held in Colorado Springs, October 31-November 2. For full particulars write the Award Committee, 11 E. 68th St., N. Y. 21, N. Y.

Rest in the Modern Method of Treatment in Tuberculosis—"With or without the benefits of modern thoracic surgery and chemotherapy, rest—absolute bed rest—graduated through to an active daily life, is still an essential part of tuberculosis treatment."—Grover C. Bellinger, M.D., president, American Trudeau Society.

MICHIGAN TUBERCULOSIS ASSOCIATION

C. L. Candler, M.D., Detroit, was recently elected President of the Downtown Optimist Club, Detroit. Dr. Candler is a Past President of the Wayne County Medical Society.

* * *

John M. Hammer, M.D., Kalamazoo, addressed the St. Joseph County Medical Society in Centerville, on April 10. His subject was "Medical Problems of Atomic Warfare."

* * *

Arthur A. Humphrey, M.D., Battle Creek, spoke on "Atomic Energy and Medicine's Role in Atomic Warfare" before the Eaton County Medical Society in Charlotte on April 25.

(Continued on Page 676)

Meat . . .
in the Low-Sodium Diet

Clinical experience[1, 2] and investigative data[3] indicate that the liberal use of meat may not be contraindicated when sodium intake must be restricted. Because unsalted meat contains only relatively small amounts of sodium, while contributing importantly to other nutrient needs, meat deserves special consideration in very-low-sodium diets, in sodium-poor diets, and in no-extra-sodium diets.

Table I lists the amounts of sodium[3] in three kinds of meat. Table II gives the estimated amounts of sodium in hospital diets planned for cardiorenal vascular patients.[4]

SODIUM IN MEAT[3]

	Sodium Provided by 60 Gm. Serving	Sodium Provided by 100 Gm.
Beef, without bone	32 mg.	53 mg.
Lamb, without fat	66 mg.	110 mg.
Pork, without fat	35 mg.	58 mg.

Table I

SODIUM IN HOSPITAL DIETS[4]

Sodium-Poor Diets*				Very-Low-Sodium Diet†
40 Gm. Protein	70 Gm. Protein	100 Gm. Protein	130 Gm. Protein	70 Gm. Protein
400 mg. Na	500 mg. Na	800 mg. Na	1,000 mg. Na	200 mg. Na

Table II

*Foods prepared and served without salt.
†Weighed diet. May contain 4 oz. of unsalted meat.
(Normal diets contain approximately 4 Gm. of sodium daily.)

Hence, the data here shown indicate that relatively generous amounts of meat may be included in low-sodium diets.

Meat serves well in the therapeutic objective of maintaining a high state of nutrition in patients with congestive heart failure or nephritic edema by providing valuable amounts of biologically complete protein and of B complex vitamins, including the recently discovered B_{12}.

1. Wheeler, E. O.; Bridges, W. C., and White, P. D.: Diet Low in Salt (Sodium) in Congestive Heart Failure, J.A.M.A. *133*:16 (Jan. 4) 1947.
2. Wohl, M. G., and Schneeberg, N. G.: Dietotherapy (Cardiovascular Disease), in Jolliffe, N.: Tisdall, F. F., and Cannon, P. R.: Clinical Nutrition, New York, Paul B. Hoeber, Inc., 1950, chap. 27.
3. Bills, C. E.; McDonald, T. C.; Niedermeier, W., and Schwartz, M. C.: Survey of the Sodium and Potassium Content of Foods and Waters by the Flame Photometer, Fed. Proc. *6*:402 (Mar.) 1947.
4. Mayo Clinic Diet Manual, Philadelphia, W. B. Saunders Company, 1949, p. 113.

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

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12" x 16" Fluoroscopic Screen and Fluoroscopic Shutter mounted on Tubestand.

Tubestand revolves through 360°.

Tubehead is counter balanced, moves easily up and down the Tubestand, and locks in any desired position.

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Spot Change-Over Control, if desired.

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WAYNE UNIVERSITY MEDICAL ALUMNI CLINIC DAY

The sixty-fifth annual session of the Wayne University Medical Alumni Clinic Day was held at the Fort Shelby Motel, Detroit, May 9, 1951. Several hundred were in attendance, and over two hundred attended the annual banquet for class reunions and presentations of honors. An excellent program was presented as follows:

Emergency Treatment Symposium on Trauma
Greater Detroit Regional Committee on Trauma.
"Injuries to the Head"
John E. Webster, M.D., Grace Hospital
"Modern Treatment of Burns"
C. Jackson France, M.D., Memorial Hospital
"Injuries to the Rectum"
Don W. McLean, M.D., Grace Hospital
"Subphrenic Abscess"
Duncan A. Cameron, M.D., Grace Hospital
"Observation on Gastrointestinal Gas"
Walter G. Maddock, M.D., Chicago, Illinois
"Radioactive Iodine in Treatment of Hyperthyroidism"
William M. McConahey, M.D., Rochester, Minn.
"The Use of Hormones in Obstetrics and Gynecology"
Jacob P. Greenhill, M.D., Chicago, Ill.
"The Management of Allergic Conditions in Infancy and Childhood"
Arthur J. Horesh, M.D., Cleveland, Ohio
"Carcinoma of the Breast"
Carl W. Eberbach, M.D., Milwaukee, Wisconsin
"Cerebral Apoplexy, Diagnosis and Treatment"
Rudolph Jaegger, M.D., Philadelphia, Pennsylvania
Annual Banquet—Coral Room.
Toastmaster—Clarence E. Umphrey, M.D., President of Michigan State Medical Society.
"The Commissioner Reports to the Doctors"
Guest Speaker—Donald S. Leonard, L.L.D., Commissioner of Michigan State Police.

This was the reunion year of the classes ending in 1 and 6, and most of those classes were represented. The class of 1901 was honored by the golden anniversary scroll. One member, Wm. E. Acker of Monroe, was ill in the hospital. Robert J. Baskerville, of Miami, Florida, James A. Elliott of Long Beach, California, and Frederick J. Hackney, Centralia, Washington, sent messages. Those present were: Parker S. Bishop, Delta, Ohio; Julius C. Clippert, Dearborn; Louis C. Kent, Manchester; and Allan W. McDonald, Detroit. The wives were also present to enjoy the felicitations.

The papers were most outstanding, and the program a marked success.

BLUE CROSS-BLUE SHIELD COMMISSIONS CONFERENCE

The 1951 annual conference of the Blue Cross and Blue Shield Commissions was held in Biloxi, Mississippi, beginning Sunday evening, April 15, with a cafeteria style banquet with 720 guests. Mammoth shrimp was

(Continued on Page 678)

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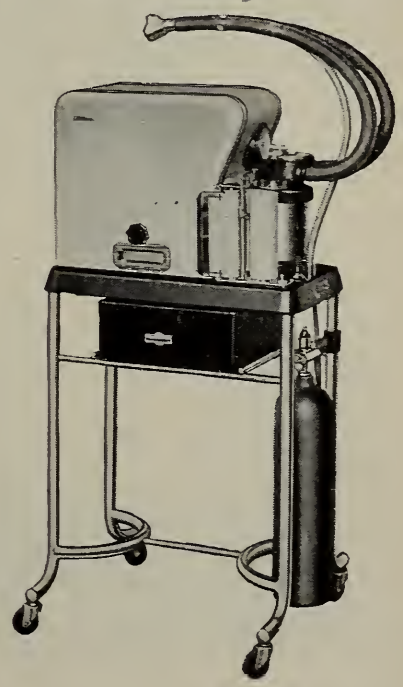
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Surgical Technique, Surgical Anatomy and Clinical Surgery, four weeks, starting July 9, August 6, September 10.
Surgical Anatomy and Clinical Surgery, two weeks, starting July 23, August 20, September 24.
Surgery of Colon and Rectum, one week, starting September 17, October 15.
Esophageal Surgery, one week, starting October 15.
Thoracic Surgery, one week, starting October 8.
Gallbladder Surgery, ten hours, starting October 22.
Breast and Thyroid Surgery, one week, starting October 1.
Fractures and Traumatic Surgery, two weeks, starting October 8.

GYNECOLOGY—Intensive Course, two weeks, starting September 24, October 22.
Vaginal Approach to Pelvic Surgery, one week, starting September 17, November 5.

OBSTETRICS—Intensive Course, two weeks, starting September 10, November 5.

MEDICINE—Intensive General Course, two weeks, starting October 1.
Gastroenterology, two weeks, starting October 15.
Gastroscopy, two weeks, starting July 16.
Electrocardiography and Heart Disease, two weeks, starting July 16.
Liver and Biliary Diseases, one week, starting September 17.

PEDIATRICS—Cerebral Palsy, two weeks, starting July 9.
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(Continued from Page 676)

the piece de resistance. The business of the conference opened on Monday, April 16. The morning sessions were devoted primarily to business. In the afternoon, the conferences were divided into numerous discussion groups. Michigan men were prominent in the discussions in these various groups. L. Fernald Foster, M.D., Secretary of the Michigan State Medical Society and a member of the Board of Michigan Medical Service, spoke on "The Demand for Higher Income Ceilings for Service Benefits." C. D. Moll, M.D., Medical Director of MMS, talked on "Fee Schedules." Jay C. Ketchum, Executive Director of MMS, gave a progress report on the National Blue Shield Service, Inc. On April 18, one of the discussion periods was "Some Special Medical Problems as They Affect Blue Shield Plans." J. S. DeTar, M.D., Chairman of the Liaison Committee of American Academy of General Practice and a member of the Board of MMS, told of the "Services of the General Practitioner." D. H. Kaump, M.D., Chairman of the Liaison Committee of the College of American Pathologists, talked about "The Growing Importance of Clinical Pathology."

Jay C. Ketchum discussed "Alternate Subscriber Certificates with Choice of Income Ceilings." Waldo Stoddard, Treasurer of the Michigan Medical Service, spoke of "Some Criteria for Sound Investments."

Wm. S. McNary, Executive Director of Michigan Hospital Service and President of the Blue Cross Commission, presided at the session. The conferences closed with a delicious steak dinner, with entertainment and the waiters marching into the dining room to a stirring band accompaniment.

* * *

Competitive examinations for the appointment of officers as Sanitary Engineers in the Regular Corps of the United States Public Health Service will be held on August 6, 7, and 8, 1951. Examinations will be held at a number of points throughout the United States, located as centrally as possible in relation to the homes of the candidates. Applications must be received *no later than July 9, 1951.*

The Regular Corps is a commissioned officer corps composed of members of various medical, technical, and scientific professions.

* * *

Dr. Osborne A. Brines, Professor of Pathology at Wayne University College of Medicine, has been elected to the position of Vice President of the International Society of Clinical Pathology.

Dr. Brines will attend the International Congress of Clinical Pathology in London, England, on July 16 to 20, 1951, as official delegate of the American Society of Clinical Pathologists.

* * *

John M. Hammer, M.D., of Kalamazoo, addressed the St. Joseph County Medical Society, April 10, at Centreville, Michigan, on the "Medical Problems of Atomic

(Continued on Page 680)



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(Continued from Page 678)

Warfare." **Arthur A. Humphrey, M.D.**, of Battle Creek, gave a similar talk to the Eaton County Medical Society at Charlotte on April 24.

* * *

The U. S. Atomic Energy Commission has announced that it awarded fourteen new unclassified research contracts, including six in biology and medicine and eight in physical research, during the month of March. During the same period the Commission also renewed ten existing contracts in biology and medicine and nine in physical research.

Among the new contracts in biology and medicine are:

Michigan State College: Investigators—Drs. R. U. Byerrum and C. D. Ball. Title—Transmethylation in Plants. Duration—To June 30, 1952.

University of Michigan: Investigator—Dr. James V. Neel. Title—The Estimation of the Rate of Mutation of Certain Human Genes. Duration—To April 30, 1952.

University of Michigan: Investigators—Drs. R. L. Kahn and F. T. Hodges. Title—Universal Serological Reaction Following Irradiation. Duration—To June 30, 1952.

The renewals in biology and medicine are:

University of Michigan: Investigators—Drs. H. J. Gomberg and F. J. Hodges. Title—High Resolution Detection of Radioactive Isotopes. Duration—To January 14, 1952.

Renewals in physics:

University of Michigan: Investigator—Dr. H. Crane. Title—42-inch Cyclotron Program. Duration—To January 31, 1952.

* * *

MICHIGAN AUTHORS

George L. Waldbott, Detroit, published an article, "Treatment of Bronchiectasis" in *Postgraduate Medicine*, April, 1951.

H. D. Ireland, M.D., Grand Rapids, published an article, "Tuberculosis Problems in Kent County, Michigan," in *The Journal Lancet*, April, 1951.

Max K. Newman, M.D., Detroit, published an article "Multiple Sclerosis" in *The American Journal of Occupational Therapy*, September-October, 1950.

Henry J. Gomberg, M.D., Ann Arbor, published an article, "What Is Radiation?" in *Industrial Medicine and Surgery*, April, 1951.

William C. Parkinson, Ann Arbor, published an article, "Sources of Radiation," in *Industrial Medicine and Surgery*, April, 1951.

Carey P. McCord, M.D., Detroit, published an article, "The Porphyrins—The Significance of Porphyrins in Occupational Diseases," in *Industrial Medicine and Surgery*, April, 1951.

Louis J. Gariepy, M.D., Detroit, presented a paper, "Non-Traumatic Rupture of the Common Duct," Tuesday, May 8, 1951, at the Seventy-first Annual Meeting of the Louisiana State Medical Society.

Industrial Medicine and Surgery, May, 1951, contains the following papers:

"One Hundred Problem People—A Study of Accident Frequency, Medical Complaints, Absenteeism, and Dis-

ciplinary Penalties in a Manufacturing Industry," by Gordon A. Eadie, M.D., of Detroit.

"Medical Applications of Radiations and Radioactivity," by Isadore Lampe, M.D., University of Michigan, Ann Arbor.

"Science Miniature-Coverall Dermatitis," by Carey P. McCord, M.D., Detroit.

MORTALITY RATE OF WOUNDED IN KOREA LOWER THAN THAT IN ANY OTHER WAR

Fewer wounded American soldiers in Korea are dying after they reach medical care than in World War II, said Colonel Lawrence A. Potter of the Army Surgeon General's Office in an article published in the current Practical Pharmacy edition of the *Journal of the American Pharmaceutical Association*. He said that the exact statistics will not be known until after the Korean operation is over, but that it now appears definite that the mortality rate of wounded soldiers is less than 2.5 per cent as compared to 4 per cent in World War II. In World War I the rate was about 8 per cent.

The article, entitled "What Medicine Has Learned in Korea," is the most comprehensive report of the full Korean medical experience yet released. Col. Potter first presented this report before the convention of the American Pharmaceutical Manufacturers' Association in Boca Raton, Florida.

The lowered mortality rate of wounded is attributed, in part, to the increased number and further uses of the antibiotics, such as penicillin, chloromycetin, aureomycin, streptomycin, and terramycin. Penicillin was the only one of these available during World War II, and it was not available throughout the entire Army medical system until late in the war.

The transfusion of whole blood, first used in the last war, is also a contributing factor to the lowered mortality rate.

Whole blood has been available since the beginning of the Korean operation, and is given to the wounded in the forward areas before they are evacuated to the rear. Plasma substitutes, such as dextran, poly-vinylpyrolidone, and gelatin are being used to combat shock due to injury, but Col. Potter declared that these substitutes can never replace blood plasma or whole blood.

Methadon, one of the synthetic morphine substitutes, has had a thorough field test, Col. Potter reported. Dose for dose, it was found to have the same pain-killing effect as morphine. It also causes far less nausea and vomiting, an important factor when it is considered that soldiers are moved to the rear by ambulance or plane while still under the influence of narcotics. Chloroquin, the new drug to combat malaria, was initially used last summer in its first test under war conditions. It was found effective as a suppressant, and much more desirable than atabrine, the antimalarial drug familiar to servicemen who fought in the Pacific areas during World War II.

Col. Potter said that chloroquin need be given only once a week instead of once a day, thus making it easier to supervise its administration. It is effective against the malaria-bearing parasites in the blood stream, but does not produce clinical cure of malaria.

The Army is at present testing another new drug called "primaquin," which, if it proves successful, will bring about clinical cure of malaria. It is planned to use chlorcquin and primaquin together, thus giving the soldier double protection when he is fighting in malarial countries.

The Army is also experimenting with a water-purifying tablet to replace the chlorine-type tablets now in use. If a soldier does not have a safe water supply at his disposal, the tablet is dropped into his canteen and purifies his drinking water. Many diseases, such as amebic dysentery, are caused by drinking impure water. The new tablet is said to be more effective as a water purifier than the chlorine tablet.

Col. Potter said that the Army Medical Service has been studying and evaluating a new type of dressing for extensive body burns. The dressing, which is a pad about 3 feet long by 2 feet wide, has on the side touching the patient a fine gauze covering backed up by many sheets of an impermeable material resembling facial tissue.

These sheets soak up the liquid matter which oozes from burn wounds, and prevents it from permeating to the outside of the bandage. This is important in preventing infection, as this liquid matter is an excellent source for growing colonies of germs exhaled from the mouth and throat, with ultimate infection of the burned area.

A bandage which is chemically treated to make it self-adhering is also being given extensive testing. The bandage also has a two-way stretch, so it can be placed tightly and securely over the wounded area without the use of safety pins or tape.

The value of ACTH to war medicine is being investigated in the Far East. It is being used in the treatment of burns, frost bite, and in wounds where the nerves have been injured. Scar tissue, which makes surgical repair of nerves difficult, is prevented by ACTH.

SONGS OLD AND NEW

These songs (some old, some new) are respectfully dedicated to our dear friends, the specialists—and others.

1. Surgeon—"Why Not Take All Of Me?"
2. Pediatrician—"I Cover the Waterfront."
3. Dermatologist—"Every Little Breeze Seems to Whisper Lues."
4. Plastic Surgeon—"It Doesn't Seem Like the Same Old Smile."
5. Psychiatrist—"You Tell Me Your Dream and I'll Tell You Mine."
6. Endocrinologist—"Glandfather's Clock."
7. Obstetrician—"Bali H'ai."
8. Geriatrics—"Dear Hearts and Gentle People" and "What's the Matter with Father?"
9. Orthopedist—"Dry Bones."
10. Cardiologist—"My Heart Cries for You" and "Be Still My Heart."
11. Proctologist—"Cheek to Cheek."
12. Roentgenologist—"I'll Be Seeing You" (also "Me and My Shadow.")
13. G.U.—"Oh, How I Hate to Get Up in the Morning" and "G. U. Are Wonderful."
14. G.I.—"Follow the Swallows."
15. Anesthetist—"Put Me to Sleep With an Old-Fashioned Melody."
16. Eye Specialist—"I'm Looking at the World Through Rose-Colored Glasses."

And we must not forget:

Intern—"The Sheik of Araby."

Resident—"Look for the Silver Lining."

And finally, a heart-rending ballad dedicated to the patient: "My Bill."

—*Detroit Medical News*, May 5, 1951.

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H.R. 3931 MEDICAL ACADEMY

By Mr. Heller, of New York, May 2.

To create the United States Medical Academy.

Referred to the Committee on Interstate and Foreign Commerce.

Comment: Identical with a bill (H.R. 9157) of last Congress by the same author. Would create a medical training school for the armed services and the Public Health Service to be known as "United States Medical Academy." President to select location of the school upon recommendation of Secretary of Defense and Surgeon General of the Public Health Service.

Students would be nominated for admission as follows: Four students for each Senator, Representative, Delegate in Congress and Resident Commissioner from Puerto Rico; six for the District of Columbia; and two by the Governor of the Canal Zone. Candidates for admission to be in age bracket 20 to 25, graduates of a college or university, or possessing the qualifications for entrance to a medical school of the State of which they are residents. Course of study to consist of courses prescribed by the American Medical Association. Upon graduation students would be commissioned and required to serve for five years in a branch of the armed services or in the Public Health or *any other federal service.*

The Superintendent of the Academy (need not be a physician) would be appointed by the President and confirmed by the Senate for a term of ten years. The Secretary of Defense and the Surgeon General of the Public Health Service, upon the recommendations of the Superintendent, would jointly fix number of instructors, hours of instruction, and titles by which the several departments of instruction and offices of professor established in the Academy would be known and would fix the compensation of all employes under the provisions of the Classification Act.

A Board of Visitors would be appointed each year made up as follows: Chairmen of the Committees on Armed Services of the Senate and House; Chairman of the Committee on Labor and Public Welfare of the Senate; Chairman of the Committee on Interstate and Foreign Commerce of the House; two other members of the Senate to be appointed by the Vice President, at least one of whom is a member of the Appropriations Committee; two other members of the House to be appointed by the Speaker, one of whom is a member of the Appropriations Committee; and five persons to be appointed by the President, three of whom, at least, shall be outstanding in the fields of medicine or medical research. The Board would inquire into the curriculum, instruction, physical equipment, fiscal affairs, academic methods, and other matters relating to the Academy. Within sixty days after an annual meeting the Board would submit a written report to the President making recommendations (the Board is purely advisory). The Secretary of Defense and Surgeon General of the Public Health Service would prescribe jointly such rules and regulations for the management and administration of the Academy as they find necessary.

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Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

MEDICINE OF THE YEAR. Editorial Direction, John B. Youmans, M.D., Dean, School of Medicine, Vanderbilt University; Internal Medicine, Hugh J. Morgan, M.D., Professor of Medicine, Vanderbilt University; Psychiatry, Franklin G. Ebaugh, M.D., Professor of Psychiatry, University of Colorado; Obstetrics and Gynecology, Frank Whitacre, M.D., Professor of Obstetrics and Gynecology, University of Tennessee; Pediatrics, Mitchell I. Rubin, M.D., Professor of Pediatrics, University of Buffalo and General Surgery, Warren H. Cole, M.D., Professor of Surgery, University of Illinois. Philadelphia: J. B. Lippincott Co., 1951. Price $5.00.

Medicine of the Year is another in a series of annual reviews of the current medical literature as selected by recognized authorities in each of the various fields of medicine.

The volume is divided into eighteen sections, each of which contains the author's selection of the outstanding advances for 1950 in his particular specialty. The format is pleasing in that each section is prefaced by a concise summary of the contents in heavier type print. This is a very commendable feature which allows the reader to take a quick glance into advances in fields in which he may have less interest and might otherwise entirely pass by in his reading. Sub-headings in each section are capitalized in large heavy letters making reference easy. A complete bibliography referring to the subject material presented is found at the end of each section, for those who may wish to search out the original article.

The book is printed on a good quality paper with double columns of readily readable print and is recommended as well worth while to those interested in a work of this type. Like preceding volumes of this series the book offers the busy general practitioner an easily readable work to aid him in the space of one or two evenings in keeping abreast of recent advances in all fields.

R. W. B.

ANNOTATED BIBLIOGRAPHY OF VITAMIN E, 1940 to 1950. Compiled by Philip L. Harris and Wilma Kujawski of The Research Laboratories of Distillation Products Industries, Rochester 3, N. Y. (Division of Eastman Kodak Co.) Price $3.00.

The developments in Vitamin E research during the past ten years has been so great that it has been well-nigh impossible for the chemist, the biologist and the physician to keep abreast of it. Because of these facts, this annotated bibliography has been compiled for the use of those interested in this problem.

A total of 1562 articles have been reviewed and the majority have been summarized. These deal not only with the medical and therapeutic use but there are chapters allotted to Vitamin E's occurrence in nature, its determination, chemistry, physiology, pathology, and

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pharmacology, its value in nutrition and metabolism and its use in Veterinary medicine.

This brochure would be of little use to the average physician but it certainly would be of value in medical libraries and other places of reference. A tremendous amount of effort has been expended in this compilation and even though of limited use, the authors merit acknowledgment of a task well done.

G. W. S.

SURGICAL FORUM. Proceedings of the Forum Sessions Thirty-Sixth Clinical Congress of The American College of Surgeons, Boston, Massachusetts, October, 1950. Surgical Forum Committee: Owen H. Wagensteen, M.D., F.A.C.S., Minneapolis, Chairman; Warren H. Cole, M.D., F.A.C.S., Chicago; Robert E. Gross, M.D., F.A.C.S., Boston; Michael L. Mason, M.D., F.A.C.S., Chicago; Carl A. Moyer, M.D., F.A.C.S., Dallas, and I. S. Ravdin, M.D., F.A.C.S., Philadelphia: W. B. Saunders Co., 1951.

This volume represents the first publication, as a whole, of the papers presented by young men in surgery at the Surgical Forum conducted each year since 1941 by the American College of Surgeons. To Owen H. Wagensteen all credit is due for originating the Surgical Forum. This, the first volume, testifies to the success of the Forum.

In a way the subject material presented in the various papers covers a major part of the surgical research now being conducted in this country. It is a preview of what one may expect to hear more about.

Well printed and illustrated, it is quite up to the standard one expects of W. B. Saunders Company. The Surgeon will find it an interesting and useful volume to add to his library.

J. H.

THE KIDNEY STRUCTURE AND FUNCTION IN HEALTH AND DISEASE. By Homer W. Smith, A.B., Sc.D., M.S., Professor of Physiology New York University College of Medicine. New York: Oxford University Press, 1951. Price $12.50.

This is an excellent and exhaustive treatise on the kidney. Portions of the book are highly technical but considerable interesting historical data is interlarded, and the frequent references to the kidneys of various species are appropriate and instructive. Of particular value are the chapters on renal and insulin clearances, experimental methods, renin, traumatic renal failure, excretion data on many drugs, and ACTH and allied adrenal phenomena.

It is replete with references and is a valuable source book. By virtue of its thoroughness, it should discourage any contemporary attempts to write a book on this subject.

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WORKMEN'S PENSIONS AND INDUSTRIAL PHYSICIANS

(Continued from Page 631)

concerned will confer with each other, either personally, by telephone or by correspondence, securing all of the pertinent facts in order that a just opinion can be reached before they take a firm unalterable position on the employe's claim. This is easy to do because either doctor can always express a wish to discuss the problem with his colleague before reaching a final decision. It seems if either of the above suggestions are followed the doctors cannot help but elevate their standing and prestige in the eyes of the public. This action also will do much to cement good relations between industrial and private medicine.

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BON SECOURS HOSPITAL CLINIC DAY

(Continued from Page 627)

USE OF BLOOD, PLASMA, AND BLOOD DERIVATIVES

J. A. KASPER, M.D.

In addition to the replacement of blood loss by whole blood transfusion other indications will be discussed. Some advantages of the use of concentrated erythrocytes after separation from the plasma will also be considered.

Hypoproteinemia is usually hypoalbuminemia. Treatment of hypoproteinemia by plasma transfusion is often not satisfactory because the rise in globulins is without an accompanying elevation of the albumin level. The importance of concentrated serum albumin in the treatment of protein loss, certain hepatic and kidney diseases and the increased metabolism associated with sepsis, suppuration and pregnancy is being more widely recognized.

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    (c) Motility.
    (d) Cell Count.
    (e) Morphology of Spermatozoa.
    (f) Abnormal Varieties.
IV. Appraisal of Fertility.
V. Factors Affecting Fertility.
VI. Recommendations and Treatment.



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The Exhibit Section at the MSMS Annual Session, Grand Rapids, September 26-27-28, 1951, will include the largest number of spaces in the history of the Society—139 booths. This is a greater exhibit than at many national meetings.

In some respects, this year's exhibit will be as interesting and desirable to doctors of medicine as the papers presented in the meeting room. The exhibit section will bring tangible values to those doctors of medicine who inspect it.



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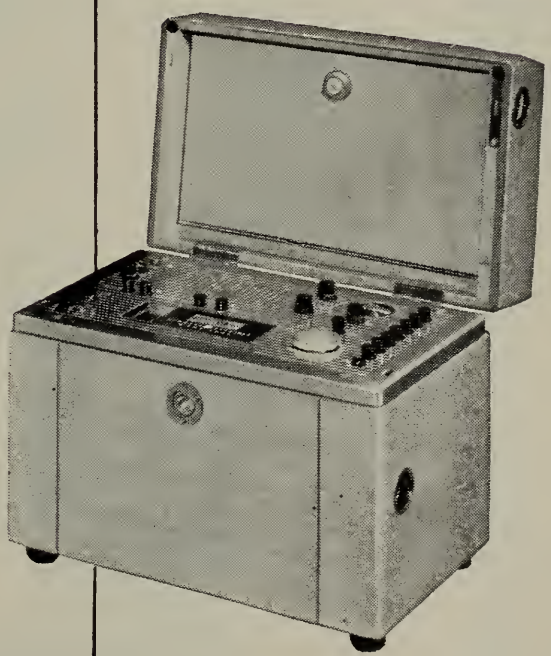
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American Medical Association

The one hundredth annual session of the AMA convened in Atlantic City, June 11-15, 1951. The Board of Trustees was in almost continuous session, as were some of the Councils. The House of Delegates held its first session Monday, June 11, at 10:00 a.m., and, through a formal session or by conference committees, was in almost constant session, excepting some of the very small hours of the night. Many problems were submitted by resolution from the various states or from the Judicial Council or the Board of Trustees. On Tuesday evening, June 12, Dave Beck, of Seattle, Washington, executive vice president of the International Brotherhood of Teamsters (A.F.L.), declared that the answer to the nation's medical care problems lies in the continued expansion and improvement of voluntary health insurance plans.

He was the second nationally known labor leader to appear before the AMA to express support of the doctors' campaign against compulsory health insurance. Last December, William L. Hutcheson, general president of the United Brotherhood of Carpenters and Joiners of America, condemned socialized medicine vigorously.

"Our job as American citizens is to meet this challenge," Beck said. "We cannot meet it with explosive propaganda aimed at destroying the system of free enterprise in the profession of medicine. The answer to the problem of medical care will not be found in any political panacea or through the development of a super-bureaucracy. The answer as proposed by advocates of govenment-controlled medicine is contrary to our econnomic structure and goes beyond our traditional guarantees."

Beck told the delegates that his union had adopted a medical care plan that featured free choice of doctors.

"I would never, under any circumstances, be a party to an arrangement of any kind whatsoever which would deny to any man the right to choose the doctor he wished to treat him in his hour of need and suffering," Beck declared.

"The progress of American medicine must not be blocked by the impediments of an uncertain and clumsy bureaucracy and I am convinced that the medical profession can advance to its highest point of attainment in service to the public only if it remains free and untrammelled. It cannot attain those heights of professional achievement under a socialized or regimented system of medicine."

Beck told the delegates he had seen the experience of state medicine in other countries and saw at first hand "the failure of socialized medicine."

The suggestion in the JOURNAL editorial for May, mentioned several times before, was introduced by Michigan Delegates, and also by delegates from New York and Wisconsin looking to some provision by which a doctor may provide for his retirement age through investment of a portion of his income tax-free, with the tax to be paid when the annuity is cashed. This measure passed the House.

The House acted favorably on the proposal that some relief be available from the requirement of attending many staff meetings as well as county Society meetings. This especially when there are several such meetings which the doctor must attend to protect his staff appointment. This must be worked out in conjunction with the American College of Surgery. The House reaffirmed its action of last year which allowed members to give lectures and demonstrations to nonmedical groups. Under this resolution medical men, and scientists favorable to medicine's philosophy are now teaching in some of the new and better schools for optometrists, on the theory that their students who will refract a large percentage of the American people may be cautioned about many conditions which are discovered at refraction and might lead to blindness.

An unsuccessful attempt was made to modify one of the principles of ethics which was quoted in the suit recently settled by consent decree involving the great optical companies and over 3,-300 ophthalmologists who now under court order are compelled to practice in a way declared by the Judicial Council to be not ethical. The Reference Committee offered a revision of the wording of the section of the code, but it was lost by an impassioned argument of the Chairman of the Judicial

(Continued on Page 702)

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SCHERING

(Continued from Page 700)

Council, who stated his duty was not to make the law but to interpret it. He certainly influenced the making of the law this time.

John W. Cline, M.D., of California was installed as President. He addressed the assembled packed Auditorium, and by radio the whole nation. He stressed the efforts of the American Medical Association and its component societies to assure a distribution of medical care to the whole people. He told of past accomplishments in health, economics, prepaid insurance programs, better medical education, and the efforts to maintain the independence of our schools.

The new President-elect is Louis H. Bauer, M.D., of Hempstead, N. Y.

Several Michigan doctors took active parts in the Scientific Session of the one hundredth annual session. J. Milton Robb of Detroit was Chairman of the Section on Laryngology, Otology and Rhinology. Frank L. Hartman, M.D., Detroit, read a paper, "Tissue Changes Following the use of Plasma Substitutes"; Coleman Mopper, M.D., Hamtramck, a paper, "Primary Sarcoma of the Skin"; J. Milton Robb, M.D., the Chairman's address, "Are You an Otolaryngologist?"; Jonas S. Friedenwald, M.D., Baltimore, and V. Everett Kinsey, M.D., Detroit, a paper, "Influence of Adrenalectomy on the Rate of Flow of the Aqueous Humor in Rabbits"; Ivan F. Duff, M.D., Harold F. Falls, M.D., and James W. Linman, M.D., Ann Arbor, "Anticoagulant Therapy in Occlusive Vascular Retinal Disease"; Carl E. Badgley, M.D., and Sylvester J. O'Connor, M.D., Ann Arbor, "Conservative Treatment of Tibial Fracture"; Leonard E. Himler, M.D., Ann Arbor, "Psychic Aspects of Aging"; Clarence E. Velz, M.D., Ann Arbor, "Public Health and statistical Aspects of Aging"; Fred J. Hodges, M.D., and Howard C. MacMillan, M.D., "Important Clinical Dividends from X-Ray Examinations of the Colon"; D. Emerick Szilagyl, M.D., Rajka R. Margulis, M.D., and Roy D. McClure, M.D., "Pituitary Adrenocorticotropic Hormone (ACTH) and Cortisone in the Management of Postoperative Complications and Related Problems," discussed by Frederick A. Coller, M.D., Ann Arbor; J. K. Ormond, M.D., and Philip W. Fairey, M.D., Detroit, "Rupture of the Urethra at the Apex of the Prostate"; Kent A. Alcorn, M.D., and Marshall W. Alcorn, M.D., Bay City, "Treatment of Benign Prostatic Hypertrophy: Evaluation of the Transurethral, Perineal and Retropubic Methods."

The following Michigan physicians discussed papers: David J. Sandweiss, M.D., Detroit, discussed a paper by Benjamin M. Bernstein, Brooklyn, "Acidity: Is It Related to Ulcer Syndrome?"; Stephen E. Gurdjian, M.D., Detroit, discussed a paper by Michael M. Scott, M.D., Philadelphia, "Cerebral Apoplexy Due to Intracranial Hemorrhage: The Life-Saving Value of Surgical Intervention"; H. Saul Sugar, M.D., Detroit, discussed a paper by Solomon S. Bray, M.D., and H. Peter Kirber, M.D., Philadelphia, "Mass Screening for Glaucoma."

CONFERENCE OF PRESIDENTS

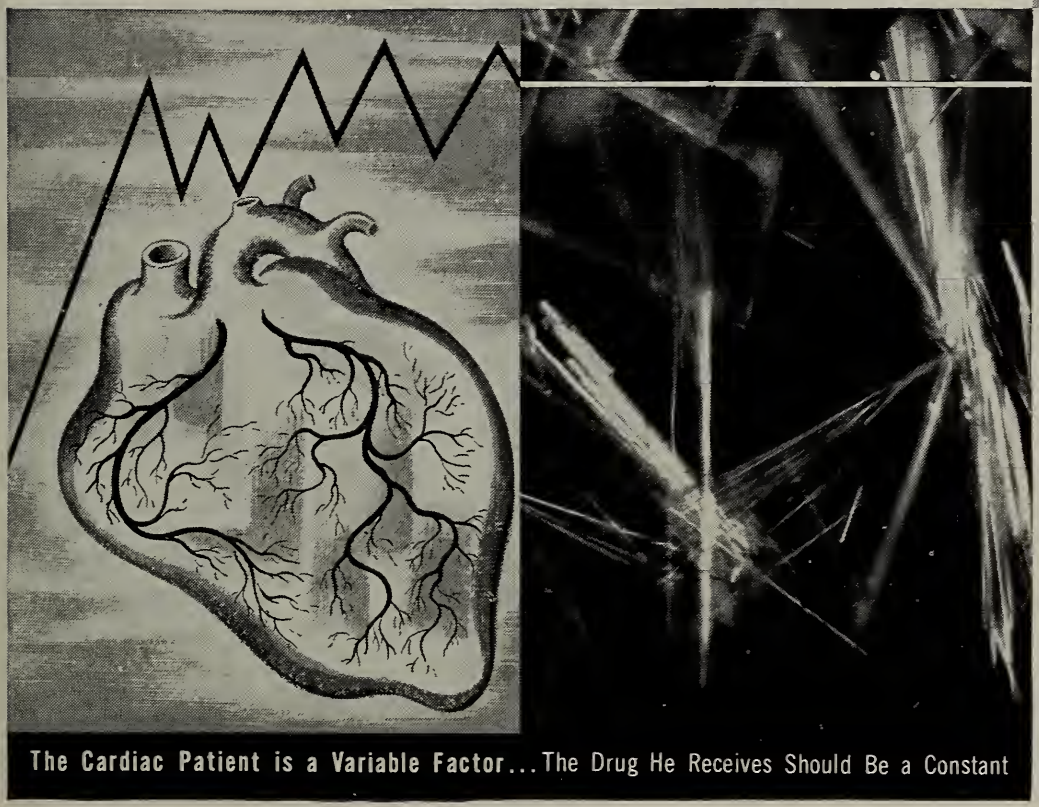
The seventh Annual Conference of Presidents and other officers of State Medical Societies was held at Hotel Traymore, Atlantic City, June 10, 1951. This is the Conference initiated by Andrew S. Brunk, M.D., while President of the Michigan State Medical Society. At this meeting there were four outstanding discussions. W. A. Bunten, M.D., of Cheyenne, Wyoming, the incoming President gave a review of the accomplishments of medicine from the standpoint of the physician. He recounted many activities including sponsorship of prepayment plans by which our patients may be helped to tide over catastrophic illnesses and provide means of adequate care. He called attention to the prolongation of life and increased health due to independent and self controlled practice—the American Way.

Edwin F. Abels, of Lawrence, Kansas, editor of the *Lawrence Outlook* and Past President of the National Editorial Association, complimented the profession very highly for a very unusual and tremendously important defence of American liberty when they stepped unexpectedly into the fight to socialize our economy, which fight was being aimed at the time at the medical profession on the assumption that it was more vulnerable than other points which could be attacked. He said someone must spark the fight for voluntary and independent American life, but the journalists were not only surprised but well pleased. He called attention to the many thousands of supporting ads which

(Continued on Page 708)

Photomicrograph (dark field) from a routine production batch of PURODIGIN

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MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

1951

Sept. 26-27-28	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION Grand Rapids
October 12	Third Michigan Cancer Conference East Lansing
Autumn	MSMS Postgraduate Extramural Courses ..... State-wide
Oct. or Nov.	American Academy of General Practice of Wayne County Clinic .....Detroit
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health) .....Flint
Nov. 7-8	American Academy of General Practice of Michigan—Postgraduate Lectures and Demonstrations ..... Detroit

1952

March 12-13-14	MICHIGAN POSTGRADUATE CLINICAL INSTITUTE .....Detroit
Spring	MSMS Postgraduate Extramural Courses ..... State-wide
April	Third Michigan Industrial Health Day Not decided
April 9	Genesee County Medical Society's Cancer Day .....Flint
April	Highland Park Physicians Club Clinic Highland Park
May 1	Ingham County Medical Society's Clinic Day ..... Lansing
May	Wayne University College of Medicine Alumni Association Clinic Day and Reunion ..... Detroit
May 15	Jackson County Medical Society's Clinic Day ..... Jackson
Sept. 24-25-26	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION Detroit
Autumn	MSMS Postgraduate Extramural Courses ..... State-wide

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

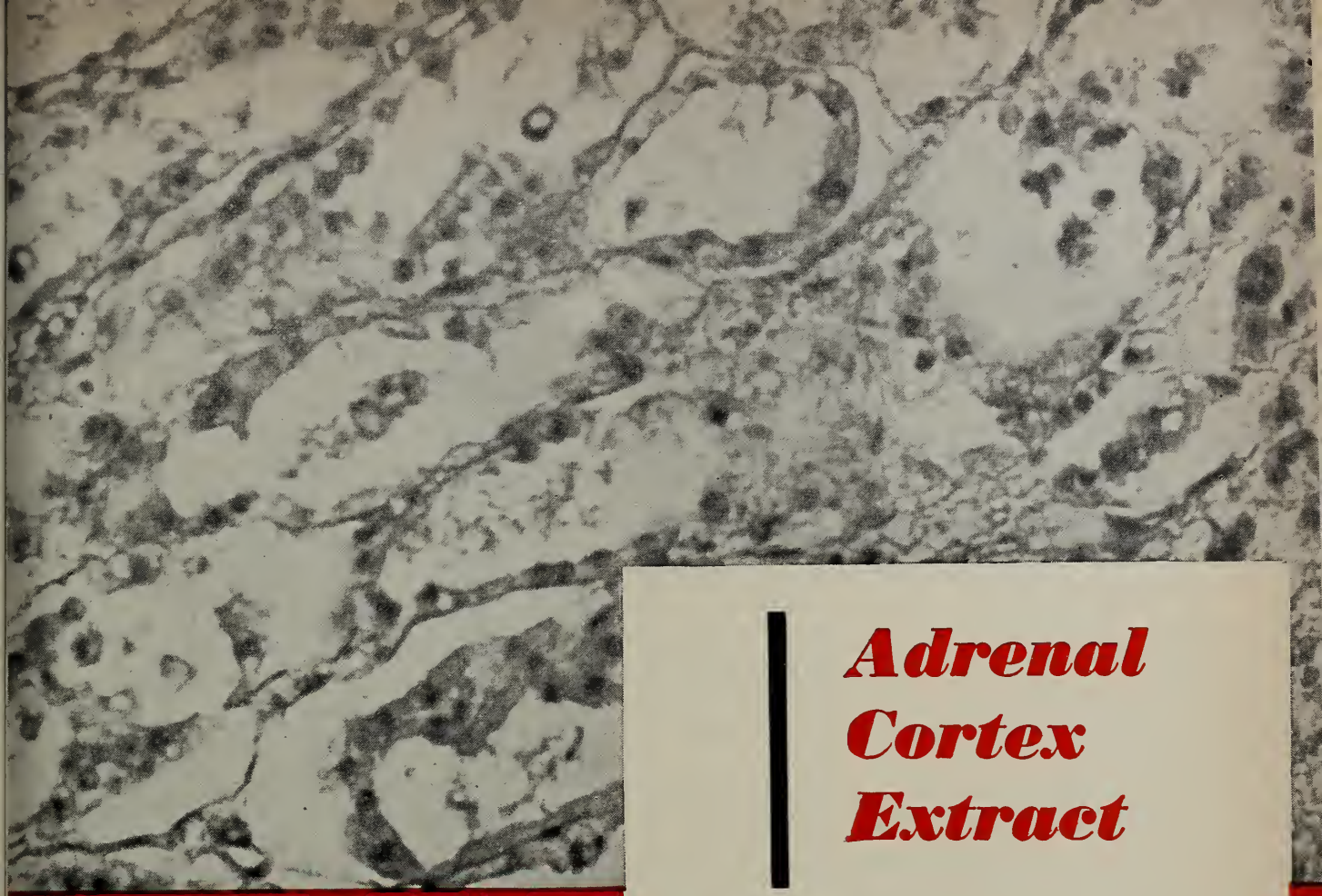
HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of May 17, 1951

Sixty-six items were considered by the Executive Committee of The Council at its May 17 meeting, an eleven-hour session. Chief in importance were:

- Monthly financial reports were studied and approved. Bills payable were inspected and authorized to be paid.
- Purchase of property at 606 Townsend Avenue, Lansing, for MSMS Executive Offices: the Legal Counsel reported correspondence with the realty company and conversations with the attorney for the Monroe Estate. The transaction can be completed when possession is given—about July 10.
- Nominations for membership on the Michigan State Board of Registration in Medicine, as required by law, were made and ordered sent to the Secretary of State, with copy to the Governor.
- Resolution requesting AMA to consider a more efficient and shortened type of insurance reporting form in collaboration with insurance companies of America, was approved and referred to Michigan Delegates to AMA House of Delegates.
- Letter of commendation was ordered sent to Paul de Kruif for his enlightening article "Your Doctor for a Friend" published in the April, 1951, *Reader's Digest.*
- Recommendation that temporary licenses be granted to those who seek residencies, until they enter practice, was approved and referred to Michigan State Board of Registration in Medicine.
- Resolution drafted by Kalamazoo Academy of Medicine re need for more Doctors of Medicine was presented. MSMS is in full accord with all efforts to increase the capacity of the two Michigan medical schools to the end that Michigan may be supplied with more physicians; this information is to be imparted to the Kalamazoo Academy of Medicine.

(Continued on Page 706)



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HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

(Continued from Page 704)

- President C. E. Umphrey reported that Governor Williams had appointed an osteopath to the Michigan Crippled Children Commission —despite the fact that osteopaths do not have the right to treat indigent crippled and afflicted children who are wards of the State. (The State Senate Committee on Business and Rules, on May 25, rejected this appointment.)
- A letter was read from Dr. Gordon H. Scott, Dean of Wayne University College of Medicine, expressing gratitude to Messrs. Wm. J. Burns, H. W. Brenneman, S. A. Campbell, and D. E. Ford for efforts in connection with obtaining favorable action for a new Medical Science Building for Wayne University College of Medicine.
- The President read a letter from Governor Williams stating he planned to reappoint A. E. Heustis, M.D., as Michigan Health Commissioner.
- Letter was read from Medical Exhibitors Association expressing thanks to the MSMS Officers for valuable help and suggestions in the past and at the present time.
- Irvin W. Sander, M.D., Detroit, was appointed as MSMS representative to the Third National Conference on Physicians and Schools, to be held by AMA in Chicago next autumn.
- Resolution re the late U. S. Senator Arthur H. Vandenberg was read, approved, and ordered sent in printed form to the family of this great statesman.
- MSMS Annual Session, September 26-28, 1951. Discussion Conference Leaders and Assembly Chairmen and Secretaries were selected; W. B. Mitchell, M.D., Grand Rapids, was appointed Chairman of the Committee on Scientific Exhibit; a $25 registration fee was ordered charged to non-MSMS members (except residents, interns, and the usual guests).
  Dates for future MSMS Annual Sessions (1952 to 1958) were selected.
- 1952 Michigan Postgraduate Clinical Institute. E. F. Sladek, M.D., Traverse City, was chosen as Chairman. Registration fee of $25 for non-MSMS members was ordered (except residents, interns, and the usual guests).
- Co-sponsorship by MSMS of Fourth Conference on Aging, to be held in Ann Arbor, July 11-13, was authorized.
- Official MSMS representatives to meeting of Upper Peninsula Medical Society, Marquette, June 22-23, were appointed. A Press Relations Conference in Marquette on June 21 was authorized.
- Joint meeting with Michigan's Delegates to the AMA. The following items were discussed: (a) Two resolutions re Hospital Standardization Program; (b) Resolution re payment of 1950 AMA Dues; (c) Resolution re Short Lived Income of Doctors; (d) Resolution re Insurance Reporting Form; (e) Resolution re Pioneers of Blue Cross-Blue Shield; (f) Ohio S.M.A. Resolution re Abolishing AMA Fellowship; (g) Nebraska S.M.A. Resolution re Too Many Medical Meetings; (h) AMA Associate Membership—to include MSMS Emeritus, Life, Retired Members; (i) Associate Fellowship in AMA for A. J. Baker, M.D., Grand Rapids, and Wilfrid Haughey, M.D., Battle Creek.
- The overlapping of postgraduate programs of Michigan and Wisconsin, especially in the Menominee-Marinette area was discussed. Recommendation was made to the MSMS Postgraduate Medical Education Committee that the two postgraduate teaching programs be integrated wherever possible.
- "Blue Cross-Blue Shield Month" (September, 1951) was outlined by R. L. Novy, M.D., Detroit, President of Michigan Medical Service. The Executive Committee voted to co-operate in the plan as outlined.
- Report of the Governor's Committee on Increase in Number of Medical Graduates from Michigan's two medical schools was explained by Secretary L. Fernald Foster, Chairman of this Committee. Commendation was expressed to the Committee by the Executive Committee.
- Monthly reports of Rheumatic Fever Coordinator and of Public Relations Counsel were presented.
- Committee Reports. The following committee reports were given consideration: (a) Infectious Diarrhea, meeting of April 25; (b) Medical Procurement, April 25; (c) Rural Medical Service, April 26; (d) Rheumatic Fever Control, May 2; (e) Cancer Control, May

(Continued on Page 708)



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HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

(Continued from Page 706)

3; (f) Special Committee to Study Insurance Reporting Forms, May 5; (g) Committee on Distribution of Medical Care, May 10; (h) Venereal Disease Control, May 13; (i) Study of Basic Science Act, February 15 (revised report).

OSTEOPATH APPOINTEE NOT CONFIRMED

Confirmation of Governor Williams' appointment of Emmett Binkert, Osteopath, to the Michigan Crippled Children's Commission was rejected by the Senate Business and Rules Committee, as per its report of May 25, 1951. It is reported that the Committee's action was representative of the majority opinion of the Senate that an osteopath should not be placed on the Commission.

RHEUMATIC FEVER CONTROL CENTERS IN MICHIGAN

Alpena	Harold Kessler, M.D., Chairman Alpena General Hospital
Ann Arbor	H. H. Riecker, M.D., Chairman St. Joseph Mercy Hospital
Bay City	L. Fernald Foster, M.D., Chairman Mercy Hospital
Detroit	Saul Rosenzweig, M.D., Chairman 4421 Woodward Avenue
Grand Rapids	Jerome Webber, M.D., Chairman 129, E. Fulton Street
Jackson	Frank Van Schoick, M.D., Chairman W. A. Foote Memorial Hospital
Kalamazoo	H. S. Heersma, M.D., Chairman Bronson Methodist Hospital
Lansing	R. H. Trimby, M.D., Chairman 2020 Olds Tower Bldg.
Marquette	Moses Cooperstock, M.D., Chairman Northern Michigan Children's Clinic
Muskegon	DeVere R. Boyd, M.D., Chairman 1735 Peck Street
Pontiac	Donald S. Smith, M.D., Chairman Pontiac General Hospital
Saginaw	David P. Gage, M.D., Chairman 27 Jarvis Yawkey Court 217 S. Jefferson St.
Traverse City	Mark F. Osterlin, M.D., Chairman Central Michigan Children's Hospital

CONFERENCE OF PRESIDENTS

(Continued from Page 702)

were printed and hoped the program would not be abated.

Most Reverend John J. Wright, Roman Catholic Bishop of the Diocese of Worcester, Massachusetts, is a well-trained and fluent public speaker. He talked about "A Clergyman Views Medicine," and gave a thought-provoking address, calling attention to the moral aspect of medicine as well as the scientific. He idealized the work of the profession, but warned against insincerity.

Senator Richard M. Nixon of Whittier, California, followed with one of his brilliant speeches. He credited the medical profession with very effective political action against the adoption of compulsory national health legislation. He complimented the profession on past success, but warned that the majority of the members of the profession must take political cognizance of other problems than just the attack on our own mode of life. He said they owe a duty to the country to take an active interest in politics regardless of whether they feel the interests in a campaign directly concerns their own livelihood.

He warned that while "the compulsory health insurance program appears to have been soundly defeated at this time, the medical profession should not sit back and adopt a smug, complacent attitude. Those who advocate such programs," he told them, "have not given up and will continue to work fanatically for their adoption."

Warning that the profession should "recognize that a good offense is the best defense" against such proposals, Nixon said "a change in the political climate might bring a swing to the left and if that should happen the demand for government control of the medical profession will again become a serious threat."

He lauded the program of the AMA to render financial assistance to the nation's medical schools as a "step in the right direction."

"Encouragement of voluntary health and insurance programs and provisions for medical and hospital facilities in areas not adequately serviced at present," the Senator said, "are other fields where constructive action is needed."

BLUE CROSS-BLUE SHIELD MONTH SEPTEMBER, 1951

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases.

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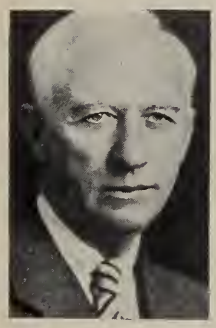
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Frank Wilson Granted Gold Heart Award


Frank N. Wilson, M.D.

Frank N. Wilson, M.D., Professor of Medicine at the University of Michigan, who is considered one of the nation's foremost exponents of the rational understanding of the electrocardiogram, received the Gold Heart Award of the American Heart Association at the annual meeting of the Association held in Atlantic City on June 9. Louis N. Katz, M.D., newly designated President of the American Heart Association, presented the award to Dr. Wilson for his outstanding contributions in the field of cardiovascular diseases.

Dr. Katz declared that Dr. Wilson "is to be ranked with William Einthoven and Sir Thomas Lewis" as a major contributor to the development of the field of electrocardiography. "His theoretical development of this subject," he said, "is properly considered the finest single intellectual achievement of modern times in the entire cardiovascular field." Dr. Wilson's experimental and clinical investigations formed the main background upon which rested the electrocardiographic diagnosis of myocardial infarction. He developed the new method now widely used for taking leads with the central terminal and is, as much as anyone, responsible for the introduction of the use of precordial leads.

Dr. Wilson has contributed to the literature of electrocardiography some hundred or more articles. Physicians from all parts of the world have visited Dr. Wilson at his laboratory and his home in Stockbridge, Michigan. Dr. Wilson himself has lectured throughout this country and abroad, both in Europe and in Latin America. He has received many honors here and abroad. He is a member of various Latin American medical and cardiological societies and is an honorary member of the Cardiac Society of Great Britain and Ireland. He has been a member of the American Heart Association for many years and he has served as a member of the Michigan Heart Association since its inception in 1949. His eminent place in cardiovascular science has already been recognized by the American Heart Association when last summer a special number of its journal, *Circulation,* was issued in his honor.

In addition to Dr. Wilson, the following delegates from the Michigan Heart Association attended the annual meeting: Mrs. Hugh Wilson and Paul Barker, M.D., of Ann Arbor; Cecil Corley, M.D., Jackson; Leon DeVel, M.D., Grand Rapids; Carleton Dean, M.D., Lansing; and Detroiters Douglas Donald, M.D., President of the Michigan Heart Association; F. Janney Smith, M.D.; Warren B. Cooksey, M.D.; F. D. Dodrill, M.D.; and John G. Bielawski, M.D., Executive Secretary of the Michigan Heart Association.

MEDICAL SCHOOLS FROZEN?

Repeated statements emanating from the group who would socialize medicine are to the effect: *"That Medical Schools are not expanding their facilities on the assumption that increased numbers of physicians are not needed!"*

The Actual Facts.—In the past five years two completely new medical schools (Southwestern in Dallas, and the University of Washington in Seattle) have been established; two two-year schools have expanded to four-year schools (University of Alabama in Birmingham, University of Utah in Salt Lake City) one older college has been approved and admitted to the Association of American Medical Colleges membership (Chicago Medical School); the State University of New York has taken over and expanded two medical schools (Syracuse and Long Island).

Extensive medical school building programs were completed or gotten under way in 1950 at the following medical schools: Alabama, Albany, California at San Francisco, Cincinnati, Emory, Minnesota, North Carolina, North Dakota, Pennsylvania, Pittsburgh, Rochester, and the University of Washington in Seattle.

Construction of new or additional clinical facilities were made in 1950 at: University of California, Colorado, Illinois, Indiana, Maryland, Michigan, New York University, Ohio State, Oklahoma, Oregon, Pennsylvania, Pittsburgh, Vermont, Washington University at St. Louis.

Money is appropriated and extensive construction planned at: Arkansas, California at Los Angeles, Colorado, George Washington, Indiana, Mississippi, Oregon, Pittsburgh, South Carolina, South Dakota, Southern California, Stritch, Temple, Tulane, Virginia, Woman's Medical.—*Michigan Health Council Bulletin,* May, 1951.



MORE HOURS of Allergy Relief...

8 to 24 from a single dose

Look in the file of clinical reports on antihistaminics and it will be apparent that one is outstanding for prolonged action. It is Di-Paralene Hydrochloride (Chlorcyclizine Hydrochloride, Abbott), a "different" antihistaminic with a piperazine side chain rather than one of the conventional types.

Numerous clinical reports attest to the longer lasting allergy relief with Di-Paralene. In many cases relief up to 24 hours can be obtained from a single dose. Initially, Di-Paralene should be administered in 50-mg. doses three times a day for the average adult, but in the majority of cases this dosage can later be reduced to one or two doses a day. One 50-mg. tablet at bedtime often provides symptomatic relief through the night. Frequently, no additional dosage is required until the next bedtime. Undesirable side-effects are comparatively few and mild.

This season try longer-acting Di-Paralene in your allergy cases. Available at prescription pharmacies in 50-mg. and 25-mg. tablets in bottles of 100 and 500. Abbott

Specify

Abbott's new long-acting antihistaminic

DI-PARALENE *Hydrochloride*

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REFERENCES: Spielman, A. D. (1950), N. Y. St. J. Med., 50:2297, Oct. 1. Brown, E. A., et al. (1950), Ann. Allergy, 8:32, Jan.-Feb. Jenkins, C. M. (1950), J. Nat. Med. Assn., 42:293, Sept. Cullick, Louise, and Ogden, H. D. (1950), South. Med. J., 43:632, July. Ehrlich, N. J., and Kaplan, M. A. (1950), Ann. Allergy, 8:682, Sept.-Oct.

Two TV and Twenty-Six Radio Shows Feature Michigan Medicine

Hopalong Cassidy and Howdy Doody have captured Michigan small fry televiewers, but their parents have a new TV hero—the Doctor of Medicine.

Television has created the opportunity for the layman to gain a knowledge of medicine in a graphic and understandable form. And the Doctors of Medicine in the Michigan State Medical Society have responded by giving their time to satisfy this public craving for information.

WXYZ-TV

Two television stations in Detroit now offer their facilities to the medical profession. WXYZ-TV (Channel 7) is the most recent station beaming MSMS programs to a potential audience of 2,000,000.

Over this station each Wednesday at 10:00 A.M., Bud Lanker, *Detroit Free Press* writer, devotes a half-hour of his show, "Hello Girls," to the story of medical knowledge. The MSMS portion of the production, which began June 27, is called the "Medical Mailbox."

The first WXYZ-TV medical show, directed at the 400,000 television sets in the Detroit area, had Arch Walls, M.D., President of the Wayne County Medical Society, as opening guest. Dr. Walls discussed the importance of having a family doctor.

Each week other Doctors of Medicine will appear on this television program to present professional topics interesting to the public. Questions submitted by televiewers are answered by the guest physicians during the final few minutes of the show.

WJBK-TV

The popular, "It's Your Life," is televised every Sunday noon on WJBK-TV (Channel 2). It is continuing on a sustaining basis during the summer months through the courtesy of WJBK-TV and Richard Jones, station manager.

The program began December 17 and was sponsored by the Medical Arts Pharmacy, of Detroit. While the show went on a sustaining basis May 20, Howard Mordue, president of the Medical Arts Pharmacy, plans to sponsor this medical production again in September.

Through the winter months, Jack Pickering, science reporter for the *Detroit Times,* acted as moderator and questioned the guests appearing on the show.

In addition to a panel of medical experts, motion pictures are screened during the program to give the audience visual information on the topic under discussion. "It's Your Life" occupies an excellent position on the April Hooper Video rating. This rating, used in both radio and television, is the yardstick which determines public response to a show. According to the rating, 50 per cent of the persons watching television Sunday noon are watching "It's Your Life."

Response Proves Popularity

Letters from the vast audience in Detroit and surrounding area are another measure of the program's popularity. When the topic was on prenatal care, at least 150 letters were written by viewers requesting the pamphlet offered on that April 29 show. One hundred letters poured in the week a pamphlet was offered during the April 15 production on plastic surgery.

After watching the plastic surgery presentation, one man was moved to write:

"If the cost is not prohibitive to me, and I can get the parents' consent, I would like to sponsor a plastic operation for a little girl."

Persons with real or imagined facial defects received new hope after watching this show. The comment of one woman was typical:

"I watched your program with great interest today. . . . I am kidded and teased about my big nose. Please . . . advise me . . . what to do. I think your program is wonderful and will be a great morale builder to a lot of folks. . . ."

In subsequent weeks, others sent in letters requesting additional, and oftimes private, information on the current TV discussion of "It's Your

(Continued on Page 714)

What cigarette do you smoke?



Make your own 30-Day Camel Mildness Test in your own "T-Zone"—that's T for Throat, T for Taste. See if you don't change to Camels for keeps.

R. J. Reynolds Tobacco Co.
Winston-Salem, N. C.

More People smoke Camels

THAN ANY OTHER CIGARETTE

(Continued from Page 712)

Life." All the letters are proof that the public seeks facts on medical topics.

Twenty-Six Radio Outlets

And in radio the medical message is broadcast on the "Tell Me, Doctor" series which is carried by 26 radio stations in Michigan. The Michigan series, which recently added a second voice, is also broadcast by stations in Oklahoma, North Carolina and Florida.

In another field of public relations, the groundwork is being prepared now to tell the story of "MSMS Firsts," which may be adapted for radio and television later. John B. Kantner, associate public relations counsel of MSMS, will write the articles on Michigan Firsts for THE JOURNAL.

Number One in the series will be the Story of the Hillsdale Plan for Cancer Detection. It will appear shortly. Since human interest stories, concerning Michigan Firsts, are necessary to add dramatic interest, Doctors of Medicine are asked to relay any such anecdotes to the MSMS executive offices in Lansing. Please direct your favorite stories to the attention of the Public Relations Department.

The human interest yarns are sought at present from those Doctors of Medicine taking part in the Hillsdale Plan throughout the state. But any story which may tell the story of Michigan medicine is welcome.

Medical men play a vital role in their community. Within that limited area they are more

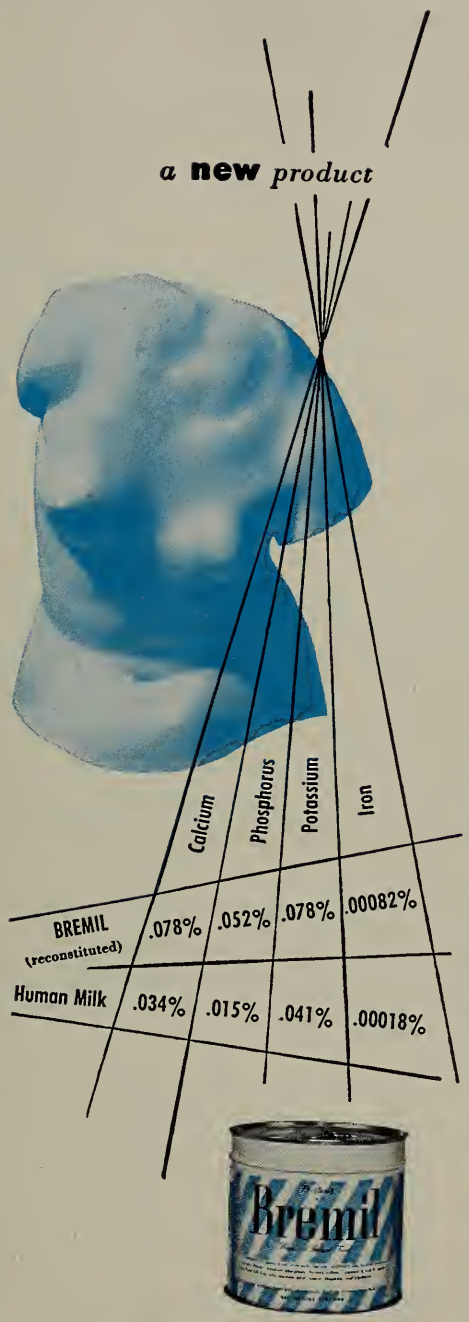
(Continued on Page 743)

"IT'S YOUR LIFE"
The Michigan State Medical Society Television Show
Presented Each Sunday at 12:00 Noon
WJBK-TV (Chanel 2) Detroit

Participants	*Topic*	*Date*
W. B. Cooksey, M.D., Detroit	Heart	December 17, 1950
George Thosteson, M.D., Detroit	Diabetes	December 24, 1950
F. J. Hodges, M.D., Ann Arbor	Cancer	December 31, 1950
Carleton Dean, M.D., Lansing	Amputees	January 7, 1951
Arch Walls, M.D., Detroit	Family Doctor	January 14, 1951
A. H. Whittaker, M.D. Detroit E. F. Lutz, M.D., Detroit	Industrial Health	January 21, 1951
LeMoyne, Snyder, M.D., Lansing	Legal Medicine	January 28, 1951
W. S. Reveno, M.D., Detroit	Goiter Areas	February 4, 1951
H. B. Zemmer, M.D., Lapeer	Epilepsy	February 11, 1951
A. E. Schiller, M.D., Detroit	Skin Diseases	February 18, 1951
Mr. Emmet Richards, Alpena Frank Van Schoick, M.D., Jackson	Crippled Children	February 25, 1951
L. Fernald Foster, M.D., Bay City	History of Medicine	March 4, 1951
J. J. Lightbody, M.D., Detroit	Arthritis	March 11, 1951
E. G. Merritt, M.D., Detroit Dean C. H. Stocking, Ann Arbor	Relationship Between Pharmacist & Physician	March 18, 1951
A. C. Furstenberg, M.D., Ann Arbor Gordon H. Scott, Ph.D., Detroit	Doctor's Training	March 25, 1951
R. W. Teed, M.D., Ann Arbor J. S. DeTar, M.D., Milan Mrs. Marjorie Karker, Lansing Mr. E. H. Wiard, Lansing Mr. H. W. Brenneman, Lansing	What the Health Council Could Do For You	April 1, 1951
J. G. Bielawski, M.D., Detroit	Cardiac Housewife	April 8, 1951
Claire L. Straith, M.D., Detroit	Plastic Surgery	April 15, 1951
Ralph Pino, M.D., Detroit	Cataract	April 22, 1951
R. K. Whiteley, M.D., Detroit	Pregnancy	April 29, 1951
J. G. Molner, M.D., Detroit	Health Dept. of Detroit	May 6, 1951
Raymond W. Waggoner, M.D., Ann Arbor	Emotional Factors in Diseases	May 13, 1951
A. E. Heustis, M.D., Lansing Harland Anderson, Ph.D., Lansing Otto van der Velde, M.D., Holland	Blood	May 20, 1951
Ralph Johnson, M.D., Detroit Mr. Palmer Bunker, Lansing Mr. Bennett McCarthy, Detroit Mr. C. F. Van Blankensteyn, Lansing	Vacation Safety	May 27, 1951
Robert Mason, M.D., Detroit	Pediatrics	June 3, 1951
B. E. Brush, M.D., Detroit	Iodized Salt	June 10, 1951
O. B. McGillicuddy, M.D., Lansing	Hearing Defects	June 17, 1951

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BREMIL is a completely modified milk in which nutritionally essential elements of cow's milk have been adjusted in order to supply the nutritional requirements of infants deprived of human milk.

In **BREMIL** the calcium-phosphorus ratio is adjusted to a guaranteed minimum of 1½ parts calcium to 1 part phosphorus. Gardner, Butler, et al., state: "Relative to human milk, cow's milk has a low Ca:P ratio..."[1] Nesbit states: "Tetany of the newborn is now recognized as a definite entity...and often accompanied by an increased phosphorus and lowered blood calcium."[2]

BREMIL is fortified with ascorbic acid as inadequate vitamin C often leads not only to scurvy but also to megaloblastic anemia.[3]

BREMIL has the fatty acid pattern of human milk.

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BREMIL is easily digested as it forms a soft flocculent curd of small particle size comparable to human milk.

BREMIL supplies the same carbohydrate as human milk.

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BREMIL is available in drugstores in 1 lb. cans.

Complete information and a trial supply may be obtained upon request.

1. Gardner, L. I.; MacLachlan, E. A.; Pick, W.; Terry, M. L., and Butler, A. M.: *Pediatrics* 5:228, 1950.
2. Nesbit, H. T.: *Texas State J. M.* 38:551, 1943.
3. May, C. D., et al.: *Bull. Univ. Minnesota Hospitals* 21:208, 1950.
4. Recommended Daily Dietary Allowances, Rev. 1948, Food & Nutrition Board, National Research Council.

flexible, palatable, easy to prepare

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Editorial Comment

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

GRAND RAPIDS—September 26-27-28, 1951

LET OUT

Gov. G. Mennen Williams in his wisdom saw fit to relieve me this week as a member of the Michigan Crippled Children Commission. A newspaper man should never hold public office anyhow.

From round the state there have been telephone calls and other messages of commiseration, even vituperation.

A dear friend in Southern Michigan urged that I "take the hide off that guy in your newspaper." Not me. This newspaper is not for personal promotion in any particular, nor for the utterance of any vengeful personal feeling.

As a matter of fact, the governor has let me out of a fairly tough job, charged as it is with the responsibility of expending more than $3 million of state funds annually.

It isn't just the long day you have to give to the meeting of the Commission once a month; there are daily problems and decisions, the often contentious sessions with the underpaid hospitals, doctors, probate judges, the multitude of individual cases of ailing kids in every part of the state. It took hours on the long distance telephone, often with some guy you never had seen.

It will be good to shuffle off all this load, but it will be a little strange too, after eighteen years as a member of the Commission, the last nine as its chairman, all during the terms of eight governors of the state.

One thing they cannot take away and that I shall carry with me always is the memory of having had ever so little a part in making life better for thousands of children.

I have seen wan faces grow full and the cheeks lightening with color, maimed bodies made able to walk, kids who might have spent their lives in dependency now making their own way, grown and the parents of healthy children of their own.

Thinking like this, you go down on your hunkers every night, say a word of prayer for all afflicted children, utter a fervent Thank God that your own, thus far, are well and strong, and Dear God may they remain so.

On the Commission I have been associated with some of the finest public servants and gentle people I have known, Paul King and Hugh van de Walker who organized the Michigan Society for Crippled Children thirty years ago, Joe Schnitzler who himself had lost two legs and an arm to osteomyelitis, Mrs. L. J. Bulkley, the impulsive Frank Couzens who hated the bureaucratic red tape with which we had to contend, Dr. Roger Walker, Dr. Harold Fenech, both men of high ethics and medical skill. Then there is George R. Cooke, probably the keenest analyst I have known. Two years ago last winter I told Gov. Williams that if he failed to reappoint Cooke he would be losing one of the finest minds in state government. The governor let him out.

Latterly, there have been Dr. John Birmingham, Martin Fleming, Mrs. Loraine Doyle, all able people.

Tops among them all is Maxwell Reynolds of Marquette. He is a mechanical engineer and why an engineer and I should develop such an affinity is beyond comprehension. He has a mind like George Cooke.

He is the man who did one of the most beautiful things I know, during the terrible polio epidemic in the Upper Peninsula a dozen years ago. Many of the kids had paralysis of the chest muscles and they couldn't get iron lungs to keep them breathing.

Did Max run around wringing his hands? Not Max—he took oil drums and packing cases and made "lungs" of them, commandeered vacuum cleaner motors to operate them, driving vital air into and from the faltering lungs. By this primitive means he kept the breath of life in dozens of kids. There was never greater drama than that.

It was a superb exemplification of the American inventiveness and know-how that leaves Joe Stalin not a Chinaman's chance.

(Continued on Page 748)

The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
VOLUME 50 JULY, 1951 NUMBER 7

Pharmacological Aspects of Allergic Disease

By Victor A. Drill, Ph.D., M.D.
and
Harry W. Hays, Ph.D.
Detroit, Michigan

IT WAS FORTY years ago that Dale and Laidlow[4] noted the similarity between histamine shock and anaphylactic shock in guinea pigs. In 1927 Lewis[8] postulated that a histamine-like substance was liberated at the site of allergic reaction in man. Histamine was later isolated and found to be a natural constituent of tissue such as liver, lung, muscle and spleen, and it is present in amounts sufficient to account for anaphylactic reactions in tissue. The histamine is normally bound and inactive and is liberated in anaphylactic or injury reactions from the injured cells.[2] However, minor discrepancies still exist regarding the exact similarity between antigen response and histamine effect under certain experimental conditions and clinically in certain allergic conditions that do not respond to the potent histamine-blocking drugs. It is likely that other substances are liberated from the damaged cell along with histamine or in some species of animals in place of histamine.

Histamine

In reviewing the various drugs used in the treatment of allergic states, it is necessary to keep in mind the effects of histamine. Histamine has three main actions that may be noted after parenteral administration.

1. *Smooth Muscle.*—Histamine stimulates smooth muscle, including bronchial muscle, small intestine, colon, spleen, vesicle and gall bladder. The stimulating effect of histamine is not uniform, bronchial smooth muscle being most easily affected.

2. *Blood Vessels.*—The primary effect of histamine on blood vessels is dilation of the capillaries. This dilatation is a direct effect that is not blocked by atropine. The arterioles or veins may be constricted or dilated, depending on the species studied. In man both the capillaries and arterioles are dilated, a hypotension resulting. The capillary dilatation leads to local accumulation of fluid and accounts for part of the action of histamine in certain allergies.

3. *Glands.*—Histamine stimulates many glands, including the lacrimal, salivary, bronchial, pancreatic and gastric glands. The adrenal gland is also stimulated to release epinephrine and the secondary rise in blood pressure following histamine administration in the cat may be eliminated by adrenalectomy.

Various attempts have been made to assign a physiological role to the histamine present in the body. Normal functions have been suggested but not proven. It is possible that histamine may play a role in the production of functional hyperemia.[1] In such studies contraction of voluntary muscle in dogs, produced by various means, was accompanied by the appearance of histamine in the venous blood of the muscle throughout the period of induced hyperemia. However, carbon dioxide is also liberated by contracting muscle, and it remains to be shown if this is related to the release

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Presented at the Symposium on Modern Concepts of Allergic Disease, Wayne University College of Medicine and Allergy Clinic of Receiving Hospital, Detroit, November 28, 1950.

Dr. Drill is professor of pharmacology, Wayne University College of Medicine.
Dr. Hays is associate professor of pharmacology, Wayne University College of Medicine.

of histamine. There have been other attempts to involve the oxytocic effect of histamine in parturition but without success. It would seem likely that histamine has as yet some undefined role in normal body economy rather than to be present as only an injurious material.

Antihistaminic Drugs

It was noted in 1932 that certain compounds exerted a weak blocking effect against some of the actions of histamine. With this lead various compounds were synthesized in attempts to develop more potent histamine blocking agents. This led to the development of materials that would block many lethal doses of histamine in the experimental animal and to the development of such well-known compounds as Benadryl and Pyribenzamine, to which have been added a host of other chemicals capable of blocking histamine. Although chemically most of the antihistamines are derivatives of ethylenediamine or ethanolamine, some highly effective compounds available for clinical use are unrelated to these basic structures.

In general, the antihistaminic drugs available counteract the numerous effects of histamine, such as (1) the hypotension produced by intravenous histamine; (2) the constriction of smooth muscle produced by histamine, particularly bronchioles and intestines; (3) histamine induced salivation; (4) the dilation of capillaries or wheal formation produced by the local injection of histamine.

The increased gastric secretion and hyperchlorhydria induced by histamine is not blocked by the known antihistaminic agents. In fact, although one antihistamine will protect guinea pigs from over 1,000 lethal doses of histamine, the animals eventually die from gastric ulcers and perforations.[6]

The antihistaminic drugs will also block or depress most of the allergic reactions that can be produced experimentally, leading, of course, to the earlier clinical trial of these materials in allergic states.

Other Actions of Antihistaminic Drugs.—Although these agents are effective chiefly in blocking histamine and in counteracting allergic reactions, they also have other properties of pharmacological interest.

1. Some of the drugs have a weak atropine-like action and can prevent the usual effects of acetylcholine on secretion, blood pressure or smooth muscle.

2. Certain of these drugs can stimulate the smooth muscle of the intestine.

3. Some of the antihistaminic agents will potentiate or prolong the pressor response to epinephrine in the experimental animal. This effect is not related to the atropine-like action or antihistaminic effects of the compounds.

4. The pressor response to epinephrine may be diminished by an agent such as thephorin.

5. Some new compounds with antihistaminic potency will also produce an adrenergic blockade similar to that seen with dibenamine.

These effects of the various agents tend to be minor and are not related to the antihistaminic potency of the compounds. The antihistaminic drugs, with the exception of Trimeton and Chlor-Trimeton, also exert a local anesthetic effect equal to or even greater than that possessed by procaine. It is of interest that histamine has been implicated as a chemical mediator for nerves that transmit pain sensation.[10] Thus theoretically the local anesthetic effect of the antihistamines may be due to a block of histamine as related to nerve transmission or to a separate unrelated local anesthetic action. This local anesthetic effect must also be considered in patients with pruritus where the relief obtained may be due either to histamine block or to primary local anesthetic action. However, since Trimeton is devoid of local anesthetic action, it points to a more important role of histamine in this mechanism.

Absorption and Excretion.—The antihistaminics are rapidly absorbed following oral administration, giving subjective and objective improvement in twenty to sixty minutes. Relatively few studies have been made on the distribution or excretion of the antihistamine drugs. Data available indicates that they leave the blood stream rapidly and localize in various tissues, particularly the lungs. The drugs disappear fairly rapidly from the tissues, but only a small amount can be recovered in urine. The destruction or inactivation is rapid, since the drugs must be repeated every four to six hours to maintain therapeutic effectiveness.

Dosage of Antihistamines.—It is necessary that doses of these compounds be individualized to secure maximal beneficial actions with the least incidence of side effects. The initial dose may be later reduced and still provide optimum control.

The average oral doses for administration three to four times a day to adults are shown in Table I.

The dosage range of Trimeton and Chlor-Trimeton for children has not been established. The other antihistaminics may be administered to children in divided doses, in a total daily amount of 2 or 3 mg. per pound of body weight. Subcutaneously most of these agents are irritating and do not offer advantages over oral administration. Intravenous injections are being studied, but if used they require a very slow injection. Doses with Benadryl and Histadyl have ranged from 10 to 50 mg. Nasal sprays have been used in patients with nasal allergy and seem to be less irritating than administration as nose drops. Creams and ointments are available for more specialized local uses.

Side Effects of Antihistamine Therapy.—The most common reactions occurring in 10 to 40 per cent of patients treated are drowsiness, dizziness, and dryness of the mouth. Many patients, however, can get satisfactory allergic relief without drowsiness, but as the doses of the various drugs are increased, the increase of drowsiness tends to rise. The sedation may be corrected in part by the use of ephedrine, desoxyephedrine or dextroamphetamine, but it is not always simple to balance sedation with a central nervous system stimulating drug. There are various estimations of the instance of drowsiness in the literature but which are poorly controlled from the standpoint of placebos. Placebos alone in one report will produce drowsiness in 18 per cent of the patients. Other toxic effects may be noted, such as headache, gastrointestinal disturbances, nervousness, tremors, weakness and insomnia. Excitatory reactions are more common in children than in adults. The production of dermatitis by these compounds has been encountered in only a few instances. More toxic reactions, particularly those on the hematopoietic system, have been reported with the more prolonged use of these compounds. Agranulocytosis and hemolytic anemia have occurred following average doses of the various antihistamines. The blood picture has so far rapidly returned to normal after discontinuing use of the drugs. Deaths have been reported, particularly in infants and children following doses of 100 mg. or more of antihistaminic drugs. The usual picture is that of depression (which may be absent) rapidly followed by convulsions, high fever, unconsciousness and death. Treatment of antihistamine poisoning is supportive, no specific antidote being available.

TABLE I

Compound	*Average Dose mg.*	*Dose Range mg.*
Antistine	100	50-100
Benadryl	50	25-100
Chlorothen	50	25-100
Chlor-Trimeton	4	2-4
Decapryn	25	25-50
Diatrin	50	25-100
Histadyl	50	25-100
Neoantergan	50	25-100
Neohetramine	100	50-100
Perazil	50	25-200
Pyribenzamine	50	25-100
Pyrrolazote	50	25-75
Tagathen	50	25-100
Thenylene	50	25-100
Thephorin	25	25-50
Trimeton	25	12.5-25

Amines in Allergic Disorders

It is well known that epinephrine and ephedrine are of value in combating various allergic diseases. These sympathomimetic amines serve as pharmacological antagonists to histamine; that is, they produce the opposite effects of histamine in the body. Epinephrine tends to counteract histamine by its strong bronchodilator activity, its vasoconstriction and a decreased capillary permeability. However, when animals are given lethal doses of histamine, epinephrine offers only partial protection, whereas the antihistaminic drugs can give complete protection. Although epinephrine is a strong bronchodilator, it fails experimentally to relieve bronchiolar constriction produced by large doses of histamine, except in amounts so large that symptoms of epinephrine toxicity are produced. Conversely, as pointed out above, the antihistamine action of the newer compounds cannot be explained on the basis of sympathomimetic activity. Further, the antihistamine drugs do not relax bronchial smooth muscle as does epinephrine. The antihistamine drugs serve only to block constriction in the bronchial tree produced by histamine or an anaphylactic reaction. Therefore, antihistamines are histamine blocking agents, whereas the amines are histamine antagonists. It should be remembered that orally administered antihistaminics take at least twenty minutes to produce some effect, and in allergic crises epinephrine is the drug of choice.

Ephedrine is less active as a bronchodilator than epinephrine, but has the advantage that its action is more prolonged. However, the use of ephedrine presents certain undesirable side effects such as nervousness, insomnia, vertigo, sweating, anorexia

and palpitation that may occur during therapy. In the last few years attempts have been made to produce sympathomimetic compounds with less effect on the cardiovascular and central nervous system. One such material is an amine called orthoxine. It is more effective than ephedrine experimentally, in relieving bronchial spasm induced by histamine, and will also relieve bronchial spasm produced by pilocarpine or acetylcholine. It has much less effect on the cardiovascular system than ephedrine, producing only rarely a tachycardia or palpitation, and elevation of blood pressure is either absent or slight. Central nervous system stimulation is also much less frequent than with ephedrine. Clinically it appears to be equally or slightly less active than ephedrine in patients with bronchial asthma. It may thus be of value in patients who cannot tolerate ephedrine.

Another amine, isuprel, has also been developed for the use in patients with bronchial asthma. This amine generally produces peripheral dilatation, resulting in a slight fall in systolic and diastolic blood pressure. Heart rate is unaffected or indirectly slightly increased. This amine relaxes smooth muscle, particularly in the bronchial tree, and will effectively combat histamine-induced asthma in guinea pigs. Clinically the compound is only slightly effective when administered orally, the best responses being obtained by inhalation. Sublingual tablets have also been tried with some success. The compound tends to produce nausea and vomiting and occasionally a feeling of apprehension and tachycardia as side effects.

Epinephrine Fastness.—Clinically the term "epinephrine fastness" is used to describe the condition arising when the patient with bronchial asthma becomes refractory to the usual bronchodilating effect of epinephrine. Although relief may be obtained by intravenous aminophylline or glucose and the administration of oxygen, the failure of epinephrine to be effective had not, until recently, been explained on a pharmacological basis.

In recent animal experiments it has been reported, and confirmed, that epinephrine will cause a production or release of histamine.[5] This release of histamine also explains in part the experimental production of marked pulmonary edema by successive injections of epinephrine. It is known that the patient with bronchial asthma is more sensitive to histamine than an otherwise normal subject, and it is possible that epinephrine may cause a greater release of histamine in the allergic than in the normal patient.

Thus, a number of possibilities are available to explain "epinephrine fastness." First, sufficient release of histamine may counterbalance the bronchodilating effect of epinephrine. Secondly, although epinephrine might relax the bronchi, the potent stimulating effect of histamine on secretions may reduce functional capacity within the lumina. The release of histamine in such cases would provide a rational basis for the intravenous use of the antihistaminics. The epinephrine and antihistamine may be used together, the antihistamine blocking the effects of histamine released follow-epinephrine, thus allowing an unopposed bronchodilating effect of epinephrine.

Miscellaneous Drugs

Antihistaminics as mentioned above may have a weak atropine-like action. Conversely, atropine has a very weak antihistaminic effect, and when studied experimentally, atropine is only a very poor antagonist of histamine. Similarly it is without practical effect in allergic states. Smooth muscle depressing drugs like trasentin are also ineffective. Local anesthetics such as procaine, nupercaine and cocaine, which were studied because of the local anesthetic properties of the antihistaminics, were without effect in preventing histamine effects in animals.

The xanthines, particularly theophylline, have also been used in the bronchial asthmatic. Theophylline acts not by blocking histamine but by producing smooth muscle relaxation and thus counteracting the effects of histamine. The most striking effects of this drug are often seen in the patient with bronchial asthma who has become unresponsive to epinephrine.

Adrenal Gland.—Adrenalectomy in dogs and rats produces a marked increase in sensitivity to histamine. Apparently the administration of both epinephrine and adrenal extract is necessary to return the sensitivity to normal.[7] Since the introduction of ACTH and cortisone in the treatment of rheumatoid arthritis and rheumatic fever, it has been observed that a number of patients were also relieved of a concurrent bronchial asthma. Only a few papers have appeared in which these compounds have been used primarily to treat allergic diseases.[3,9] In these initial reports, relief has

been obtained in bronchial asthma, status asthmaticus, and vasomotor rhinitis. While ACTH and cortisone have been effective, there has not been a complete relief in all cases. It is also difficult to evaluate these results since the mechanism of action is not understood. In view of the metabolic effects produced by these compounds, many more studies will be needed before they may be used in place of the relatively safe and effective histamine antagonists or histamine blocking agents.

Discussion

There has been some criticism of the use of the word, antihistaminic, as applied to various compounds. This is in part justified for these compounds block not only histamine but have other pharmacological effects, in part acting as anticholinergics, sedatives, central nervous system stimulants and as local anesthetics. Strictly speaking, therefore, they are not pure antihistaminic agents. However, how else might they be classified? Their chief action is certainly to block that of histamine, and the side effects, although present in some compounds, are not present in all and are not necessary in order to obtain a histamine blockade. They might be classified from a therapeutic viewpoint as anti-allergics along with epinephrine and similar compounds.

Blocking agents of any type generally do not block equally in the various organs of the body. We might by analogy compare the blocking effects of antihistamines with those of atropine. If we stimulate the chorda tympani, innervating the sub-maxillary gland, we obtain vasodilatation in the gland and increased secretion. Both effects are produced by the liberation of acetylcholine from the nerve ending. Yet atropine will block or decrease secretion without affecting the vasodilatation, showing that some difference exists in the response of the end organ although similarly innervated. Further, as is well known, the vagus distributes its fibers to the stomach and to the intestine and yet under conditions of vagal stimulation atropine will block motor effects on the stomach with relatively poor effects on the intestine. Thus the blocking effect of atropine varies quite considerably, depending on the organ to be influenced, and we may expect a similar difference in response when antihistamines block histamine or an allergic reaction. We must also remember, in evaluating histamine-blocking drugs, that the origin of histamine in the allergic patient or animal is from an endogenous source. Therefore, the response may differ in some respects from the results obtained when histamine is injected. Thus there are various reasons why we might expect a good effect of an antihistamine in certain allergic reactions and a poor response in others.

Summary

Histamine is well implicated as the chief material produced in an allergic reaction. The liberated histamine produces various pharmacological changes which in general can be blocked by antihistaminic agents. These compounds may possess other pharmacological effects, but these are not correlated with the antihistamine potency of the compounds. Epinephrine and related amines act not by blocking histamine in the sense that antihistaminics do, but by acting as an antagonist to histamine. Thus we have two groups of compounds available for clinical use, those which block the effect of histamine and those which act as histamine antagonists. While other compounds, such as ACTH and cortisone, have been reported to be effective in allergic diseases, their mechanism of action may be unrelated to these two effects.

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MSMS

First symptom in 80 per cent of Hodgkin's disease is painless enlargement of lymph nodes usually cervical but sometimes inguinal or axillary.

* * *

Periodic roentgen examinations are indicated for all persons whose occupations cause them to be exposed to lung irritants over long periods of time.

* * *

In all suspected cases of lung carcinoma an exploratory thoracotomy should be performed.

* * *

Nearly all cancers of the oral cavity, breasts, labia, vagina, rectum and anus can be reached by the physician's finger.

Mass Screening or the Multiphasic Clinic

By Vlado A. Getting, M.D., Commissioner
Massachusetts Department of Public Health

Boston, Massachusetts

IN RECENT years various screening techniques have been developed for the detection of certain of the major killers such as high blood pressure, heart disease, diabetes, syphilis, or tuberculosis. An individual may have a chest x-ray to rule out tuberculosis, in another clinic he may be screened for diabetes and in a third place he can be checked for high blood pressure and heart disease. Such screens are not intended to replace the diagnostic skill of the physician. Rather they are attempts to indicate or to raise suspicion in apparently healthy individuals of the presence of these diseases, and subsequent diagnosis and treatment is carried out by their own personal physicians. For many reasons, however, it is desirable that screening procedures that have been proved effective for certain diseases be offered simultaneously, and in a single visit to a clinic, such as is possible in a mass screening or the Health Protection Clinic. In such a clinic a medical history is taken, a limited physical examination performed, blood pressure and pulse rate determined, x-rays of the chest, certain blood and urine tests, and vision and hearing tests are conducted. Thus, with a minimum of time and expense the individuals examined are screened for the presence of the major conditions that may lead to serious protracted illness, disability, or untimely death. Through early detection of such diseases as hypertension, heart disease, diabetes, cancer, tuberculosis and nephritis, patients are referred to their family physicians for complete checkup and treatment. The incidence of complications, long-term care in hospitals or at home, and serious loss of earning capacity is reduced. The objective of these clinics is to keep people well and on the job rather than to have them come to the hospital as patients or permanently disabled and on welfare lists.

The concept of mass screening has been accepted in many places throughout the United States, one of the earliest clinics being conducted in San Jose, California, under the joint sponsorship of the Santa Clara County Medical Society, the San Jose City Health Officer and the California State Department of Public Health. The screening was restricted to an industrial population and applied to 945 employes, and consisted of taking radiographs of the chest, drawing of blood specimens, urine samples, and securing a history on each patient.

A more ambitious program was started in Alabama under the direction of the State Department of Health late in 1949.

On a county basis a mass screening of the population was made for tuberculosis and heart disease by the use of the x-ray and for syphilis and diabetes through blood specimens.

In Richmond, Virginia, the local city health department, with the assistance of the State Health Department and financial participation by the tuberculosis association, started a mass screening program on the seventh floor of one of the finest department stores in Richmond. The tests consisted of an x-ray of the chest for the screening of tuberculosis and heart disease, blood specimens for detection of syphilis and diabetes and hemoglobin, recording of blood pressure, height and weight. One out of five was tested for visual defects by the sight screener; one out of five over the age of fifteen was tested for glaucoma with a tonometer; and one in ten had an electrocardiograph. It is estimated that this clinic could handle approximately 6,000 per month.

No doubt there are many other programs of mass screening such as the one started in Indianapolis, Indiana, under the joint sponsorship of the Public Health Service, the State Department of Health, and the Indianapolis Health Department, whereby a special project located in one of the city's health centers was developed. The screens used were chest x-ray, measurement of height and weight, cardiac auscultation, blood sugar, serology test for syphilis, hemoglobin determination, sight screener for vision defects, audiometer for hearing test, and personal data.

In May, 1949, the Council of the Massachusetts Medical Society voted at its annual meeting to establish five pilot multiphasic clinics. At the same time, it empowered a Committee of the Society to act in accordance with the plans set up by the Massachusetts Department of Public Health with regard to a screening program in Massachusetts.

Presented at the 85th Annual Session and Postgraduate Conference of the Michigan State Medical Society, Detroit, Michigan, September 21, 1950.

Soon afterward a co-operating grant was received from the Public Health Service and funds were likewise made available from the Massachusetts Department of Public Health for an initial multiphasic clinic. Two voluntary agencies, the Massachusetts Heart Association and the American Cancer Society (Massachusetts Division), have also contributed to the support of this first venture. With the development of the plan by the Committee of the Medical Society, the New England Center and Pratt Diagnostic Hospital in Boston was chosen as the first site for the clinic.

During the first week in December, 1949, a trial run of the clinic was held in which a hundred of the Department of Public Health's own personnel were screened. Finally, on January 3, 1950, the "Health Protection Clinic" was opened to the public. There was an overwhelming response to the single news release announcing the clinic. The telephone system became disrupted from the enormous influx of calls. People also called in person and flooded the office with letters. To the joy of the telephone company, the instrument was disconnected after only three days, and news releases were sent out announcing that all further requests for appointments must be made by mail. Yet the applications still arrived in such quantities that twice as many requests were received as could be granted for appointments.

Objectives

The purpose of a Health Protection Clinic Study is:

1. To refer persons with suspicious screening results to their family physician for diagnosis and treatment.

2. To screen apparently well individuals for the possible presence of heart disease, hypertension, diabetes, tuberculosis, cancer, syphilis, nephritis, vision and hearing defects, and nutritional status.

3. To motivate people to obtain early medical care and thereby reduce illness, welfare loads and unnecessary deaths to a minimum.

4. To evaluate various screening procedures against a physical examination and a history and to study the various motivations which bring people to the clinic.

5. To evaluate from the point of view of cost and administrative techniques the applicability of various screening procedures, including those which may be carried out in the family physician's office.

Clinics

The State Department of Public Health has received the co-operation of the Massachusetts Medical Society and many other agencies in the development of clinics in pivotal locations in the Commonwealth. One research clinic has been in operation at the New England Center Hospital since December, 1949, and the findings of over 2,000 cases are being presented here. It is expected that an evaluation of techniques can be made on the 2,600 people who were seen in this clinic. It is planned to establish these clinics throughout the Commonwealth, so that eventually there will be in operation both fixed clinics in hospitals and health centers as well as mobile clinics.

Procedures of the Clinic

Each patient, prior to his visit, is sent a 222-question form, the Health Protection Self-Screener, which is similar to the Cornell Medical Index but has been adapted for special use in the clinic. During this visit to the clinic, the patient receives not only all of the available clinical screening tests but a complete physical examination which occupies on an average of about twenty minutes of the screening time. The procedures and tests now used in this multiphasic clinic include:

1. Self-screener medical history
2. Blood test for serology, sugar and hemoglobin
3. Urine test for sugar and albumen
4. Vision test
5. Hearing test
6. 70 mm. chest x-ray
7. Measurement of height and weight
8. Recording of blood pressure readings
9. Temperature is taken
10. Pulse and respiration recorded
11. Physical examination at least twenty minutes in length including a routine rectal with hematest (for occult blood in the stool specimen) and a pelvic and/or papanicolaou where indicated.

Through these three types of procedure, that is, history, clinical tests and physical examination, it is hoped that statistical studies may be made to evaluate the first two in such a way that eventually the physical examination may be deleted from the procedures. In such a case, if suspicion of disease is raised by the history and clinical tests alone, then those individuals needing a physical examination would be sent to their own family physician.

Referral and Followup

If, upon application of the screening tests, persons are suspected of having disease, they are re-

TABLE I. DEFECTS FOUND IN 2000 SCREENEES

Defect	Number Not Previously Diagnosed or Under Treatment	
Obesity		353
Vision		212
Hypertension		173
Heart Disease		159
Rheumatic	20	
Hypertensive	41	
Other	98	
Hearing		140
Underweight		39
Diabetes		47
Anemia		29
Lesions suspected of being cancer		102
Uterus and Vagina	35	
Gastrointestinal	16	
Rectum	14	
Breast	11	
Skin	7	
Lung and Mediastinum	4	
Prostate	4	
Mouth	3	
Metastatic	3	
Kidney, Larynx, Bladder, Brain and Thyroid	1 each	
Tuberculosis		17
Nephritis		10
Syphilis		8
Other Conditions		441
Gynecologic conditions	221	
Gastro-intestinal conditions	76	
Hyperthyroidism	42	
Pulmonary disease*	32	
Benign tumors	31	
Genito-urinary conditions**	18	
Goitre	13	
Hypothyroidism	8	
Total Number of Defects (not under medical care)		1730

*Other than Tuberculosis
**Other than Nephritis

ferred back to their family physician or to an outpatient clinic for definitive diagnosis and treatment. The physician is asked to give his final diagnosis, and after a reasonable length of time, if no answer is received from him, a public health nurse calls or visits him to determine whether or not the patient has been to see him. If the patient has not visited his doctor, a social service worker calls upon him to urge him to do so. Followup at present is being made of all positive screening results as a check on the effectiveness of the procedures and also to insure that the patient has reached the doctor for final diagnosis and treatment. Followup will also be made on random samples of normal cases to determine whether any conditions have been missed in the Health Protection Clinic.

Results

The initial run of the first pilot clinic is completed. Over 2,600 persons were seen in the clinic. Of these, 2,000 records have been carefully tabulated with the following results: 1,266 persons (63.3 per cent) were referred for abnormal conditions both known and unknown to their family physicians. Actually, however, only 1,177 of these were referred for conditions not previously under

TABLE II. DEFECTS FOUND ONLY BY PHYSICAL EXAMINATION

Defect	Total Number New Defects	New Defects Found Only By Physical Examination	
Heart Disease	159	48	(30.2%)
Lesions Suspected of Being Cancer	102	38	(37.3%)
Other Conditions			
Gynecologic Conditions	221	84	(38.0%)
Gastro-intestinal Conditions	76	12	(15.8%)
Hyperthyroidism	42	24	(57.1%)
Pulmonary Disease*	32	10	(31.3%)
Benign Tumors	31	8	(25.8%)
Genito-urinary Conditions**	18	8	(44.4%)
Goitre	13	13	(100.0%)
Hypothyroidism	8	6	(75.0%)
Totals	702	251	(35.8%)

*Other than Tuberculosis
**Other than Nephritis

medical care. These 1,177 persons had 1,730 previously unknown or untreated conditions; in other words, 1.5 defects were found per person.

The major defects found were as follows (Table I):

1. *Obesity*—353 persons who were more than 20 per cent above the ideal weight were referred for obesity.

2. *Vision*—The screening level of 20/40 vision in either and both eyes for far and near vision was not met by 212 persons. These persons with vision defects had no glasses or had not been refracted for glasses for more than one year.

3. *Hypertension*—A systolic pressure above 150 mgs. or a diastolic pressure above 90 mgs. was found in 173 persons who previously had no knowledge of the presence of hypertension.

4. *Heart Disease*—A total of 159 cases of heart disease was discovered at the clinic, either by physical examination, x-ray or history. Of these 159 cases discovered there were twenty cases of rheumatic heart disease, forty-one cases of hypertensive heart disease, and ninety-eight other cases of heart disease. This last group includes arteriosclerotic heart disease, angina pectoris and two cases each of luetic and congenital heart disease.

5. *Hearing*—140 hearing defects not under treatment were found. These persons had a hearing loss in either ear below the screening level of 30 decibels at 512, 1028, and 2054 cycles (the range of the human conversational voice).

6. *Cancer*—There were 102 lesions suspected of being cancer from the history, physical examination or certain clinical procedures; for example,

x-ray, Papanicolaou or hematest, were revealed in the first 2,000 screenees.

The lesions suspected of being cancer were found in:

Uterus and Vagina	35
Gastro-intestinal tract	16
Rectum	14
Breast	11
Skin	7
Lung and Mediastinum	4
Prostate	4
Mouth	3
Mestastatic area	3
Kidney, Larynx, Bladder, Brain and Thyroid	1 each

All of these are being followed up at the present so as to obtain a final diagnosis.

7. *Underweight*—thirty-nine persons who were more than 20 per cent below the ideal weight were considered referrable for malnutrition.

8. *Diabetes*—The diagnosis of diabetes was made in forty-seven cases previously not under a physician's care. Diagnosis was made on the basis of a blood sugar level above 180 mgs. per cent, or a positive glucose tolerance test.

9. *Anemia*—twenty-nine cases of anemia were found, though no attempt was made to classify them as to type of etiology. A hemoglobin level below 11 gms. for men and 10 gms. for women (15.6=100 per cent) was considered as a screening level.

10. *Tuberculosis*—seventeen cases of tuberculosis were detected by x-ray examination. If the initial 70 mm. photofluorographic x-ray was suspicious of disease, a 14 x 17 chest plate was taken for confirmation. These discovered cases were for the most part in the early stages of the disease. One person, for example, had had a negative 70 mm. chest plate on routine survey two months before her visit to the clinic. A suspicious lesion was found at the clinic which preceded by two months' time the appearance of positive tuberculosis test and the symptoms of pleurisy with effusion.

11. *Syphilis*—Only eight cases of syphilis were found on routine Hinton examinations.

In addition, revealed by history or physical examination, were many cases of pelvic conditions, including cervical polyps and erosions, fibroid uterus, gastrointestinal disorders, ulcers, colitis, hiatus-hernia and gastritis. Also found were several goiters some with suspicious hypothyroidism. Many

TABLE III. SUMMARY OF FINDINGS

Total Persons Screened	2000
Total Defects Found	2187
Number of Persons Apparently Normal	734
Number of Persons with Referrable Conditions	1266
Number of Persons with New Defects (Not under medical care)	1117
Number of New Defects (Not under medical care)	1730
Number of New Defects per Person	1.5

persons were suspicious of psychoneurotic tendencies, and in some instances this was the only reason for referral to the family physician.

Many cases of arthritis were discovered, mostly inactive in nature. Two cases, however, were apparently in early active stages of rheumatoid arthritis.

Summary

1. A brief description is given of the first Health Protection Clinic held in Boston, Massachusetts, including the procedures performed at the clinic and the purposes.

2. A summary of the first 2,000 cases seen at the clinic reveals the presence in 1,117 people of 1,730 unknown or untreated conditions, or an average of 1.5 defects per person.

3. Of 1,730 previously unknown defects, 1,479 (85 per cent) were found by the use of the screens alone. The elimination of a physical examination of twenty minutes duration would have meant that 15 per cent of the previously unknown defects would have been missed. Only 702 of the defects which were discovered could be considered as possibly detectable by means of a physical examination. Of these, however, only 251 (35.8 per cent) were discovered by the examining physician. If the physical examination is reduced to an average of ten minutes and includes only general observation, auscultation of the heart and a rectal or vaginal examination where indicated, we believe that nearly all of the positive signs of heart disease, suspected cancer, gynecological conditions and some of the other obvious physical defects could be found as in a twenty-minute examination.

The second pilot clinic, which is to open October 3, will therefore offer the same screening procedures but only a ten-minute physical examination. Five thousand or more persons will be screened, and it is expected that about 5 per cent of the overall defects (as were found in the first pilot clinic) will be missed.

In a third pilot clinic to be opened this winter, the physical examination will be omitted entirely, and it is expected that about 15 per cent of the

(Continued on Page 735)

Importance of Physical Medicine and Rehabilitation for the Industrially Injured

By Gordon M. Martin, M.D.
Rochester, Minnesota

PROBLEMS of physical restoration and rehabilitation of individuals injured or handicapped by industrial or occupational accidents should concern everyone. The employe always has either a conscious or an unconscious dread of an occupational accident, and fears its effect on his earning capacity and on the economic security of his family. Employe groups have sought and obtained greater protection for their members against both physical and economic disaster that can occur following occupational accidents. During the past twenty years industries and employers have continued to assume greater responsibility for the health of the workers. As a result, rapid strides have been made in prevention of occupational accidents. Also, more comprehensive liability insurance programs have been developed to provide compensation, as well as funds for necessary medical and surgical care. However, facilities for physical medicine, which are essential for final physical restoration and rehabilitation, have been most inadequate. In the report on America's health,[4] a group of authorities on these problems declared: "Physical restoration is the largest missing link in the treatment of the industrially injured."

Sources and Kinds of Injury

Usually the large manufacturing industries are thought of as the principal sources of the approximately 2,000,000 compensable occupational accidents which occur annually. However, an assistant who strains his back while lifting a box in the stock room of a store, needs as good medical care including the means of rehabilitation, and as much compensation, as the machinist who receives a hand injury while operating a drill press. Likewise, the farm laborer who has his hand and forearm mangled in a corn picker, or who receives multiple fractures when his tractor turns over, or when a horse kicks him, is the victim of an occupational accident. Although lumbering and mining have the highest incidence of occupational injuries of the major industrial groups, transportation, construction, various trades, foundry work, public utilities, manufacturing, storage and warehousing are well represented.

A glance at the principal causes of occupational accidents indicates that everyone, from the miner to the housemaid, or from the machinist to the schoolteacher, is exposed daily to several of the more common potential sources of accidental injury. Year after year, the statistics of the National Safety Council[5] have shown that the lifting and handling of objects is the principal source of compensable occupational injuries, accounting for a fifth of all disabilities. Falls result in the next largest number of injuries (17 per cent), with accidents related to machinery a close third (16 per cent). However, accidents in which machinery is concerned actually account for the largest number of lesions resulting in permanent partial disability.

The Value of Measures of Physical Medicine and Rehabilitation in Industry

Although occupational death rates have decreased strikingly in the past fifteen years, the injury rate has remained relatively constant, except for a significant increase that occurred during the war period. The first-aid treatment now available for the victim of the industrial accident is good. Medical and surgical care as it is provided by the patient's physician or by physicians retained by the employer, and by consulting specialists, is excellent. However, as has been said, adequate facilities for physical medicine, which provides for physical restoration and rehabilitation during and following definitive medical care, do not exist in most places. Physical therapy, the cornerstone of physical medicine, consists of the use of physical agents including therapeutic exercise, heat, massage and water and electricity for treatment. A large percentage of the most common occupational injuries result in disabilities that deserve thorough well-supervised physical therapy to insure most rapid and complete recovery of maximal function.

A survey of the types of industrial injuries indicates that the majority of the disabilities that delay recovery and return to work are the result of injuries that leave residual stiffness of joints, muscular weakness, and poor co-ordination. These residual effects ordinarily can be minimized by

Presented at a meeting arranged by the Committee on Physical Medicine of the Bay City General Hospital, Bay City, Michigan, May 24, 1950.

From the Section on Physical Medicine, Mayo Clinic, Rochester, Minnesota.

physical therapy and occupational therapy. Out of 72,000 compensable cases which were studied by the Liberty Mutual Insurance Company for the year 1945,[3] cuts, bruises and lacerations accounted for 31,000 of the injuries. In second place were 13,000 cases of sprains, strains and dislocations. In third place were 9,600 fractures. Burns and scalds accounted for 2,400 and amputations for 2,100.

In this series of 72,000 cases of occupational accidents, the compensable time loss averaged forty-four days per case. The total cost of medical care for these patients was approximately $5,000,000, or about $67 per case, with an average of only about $1.50 per day for medical care. This figure of approximately $5,000,000 for medical care can be compared to the more than $16,000,000 which was paid in compensation to this same group. It appears that with some increase in medical expense in order to provide physical medicine and rehabilitation services, the period of disability and compensation can be shortened markedly and the degree of recovery of function increased. Thus with less money needed for compensation, insurance rates could be reduced.

Development of Facilities in Physical Medicine in Peace and War

Modern concepts of physical medicine and rehabilitation are of comparatively recent emergence, and the relevant services are still in the early phases of development and expansion. Some of the first systematic attempts at physical restoration and rehabilitation were made in England in the early 1930's. Convalescent centers were established for physical rehabilitation of miners who had sustained fractures and crushing injuries of the muscles in the coal mines of England and Scotland. After the earliest period of hospitalization had been completed, and while one or more extremities still were in plaster casts, the patient was sent to a convalescent center, usually in a rural area at some distance from the mines and from his home. Well-supervised programs of physical therapy, with emphasis on active exercise and recreational activities, were utilized to hasten the return of muscular strength and function of joints. It was soon observed that injured individuals who were actively treated at these centers could return to work in a much shorter period than was possible for the patient who was allowed to lie around in his local hospital, or "vegetate" at home.

During the recent World War, developments in rehabilitation were rapid. All branches of the military service maintained various programs for physical restoration and rehabilitation. Two of the most outstanding were set up, one by the British, and the other by the American, air force. It was shown statistically that as compared with control groups, patients on supervised programs of physical medicine, with emphasis on graduated exercises, were returned to duty after shorter periods of hospitalization and convalescence, and that among these patients the incidence of recurrence of disability was much lower. It was found that these programs of physical reconditioning and rehabilitation were useful in treatment of many so-called medical conditions, as well as in treatment of disabilities resulting from wounds and other injuries.

Also, in the course of the war, it was observed that the after-care provided the civilian worker following industrial accidents was not paralleling the excellent rehabilitation services being provided for those injured in the military services. Periods of disability following injuries of civilian workers were long and the supply of workers was short. The need of programs for physical restoration and rehabilitation therefore became obvious, and these were initiated. Results were good, and a certain direction in which their goodness was evident may as well be dealt with here. Industry soon learned that individuals with handicaps following accidents and diseases often could be fitted for, and trained for, new jobs. It is now well known that the production rates of handicapped workers, when properly placed in industry, are equal to those of workers without handicaps. Likewise, it has been found that absenteeism is no higher among handicapped workers than among those who are free of handicaps.

But, to return to the entire problem as it came up for solution in wartime civilian industry: Noting the long periods of disability following many industrial accidents, the Liberty Mutual Insurance Company established a pioneer, or pilot, civilian rehabilitation center in Boston. This center was established in 1943 to treat the industrially injured on an out-patient basis. It was recognized that, following an accident or surgical operation a patient could not be expected to rehabilitate himself. The idea was accepted that he should be under medical supervision to make sure that a complete program was arranged and carried out, with the object of restoring

function of joints and muscular power. Facilities were made available at this Boston center for physical therapy, occupational therapy and recreation. More extensive facilities were provided than were available in most hospitals or in any physician's office.

Aitken[1] reported some of the results of treatment of the first 797 patients received at this center. For the most part, the injuries were severe, and many of them multiple. The average interval between the time when the injury was sustained, or surgical operation was performed, and the time of admission to the rehabilitation center, was seven months. The average period of treatment at the center was forty-two days. Of the 797 patients treated, the condition of 673 (85 per cent) was improved and 434 of these were returned to work. The condition of only 124 (15 per cent) was not improved. The fact that so much was accomplished in forty-two days, after seven months of complete disability, seems significant.

An extensive and thorough program for rehabilitation and physical restoration of patients chronically disabled from disease or from accident industrially or otherwise sustained, has been set up by Rusk, Deaver and Covalt at the New York University-Bellevue Institute of Physical Medicine and Rehabilitation.

Although the present program at this institute has been in force for only three or four years, facilities are already overtaxed and plans for expansion are being completed.

The programs of physical restoration and rehabilitation thus far described were designed primarily for the care of the severely and chronically disabled person. Economically, it is just as important that facilities in physical medicine be available for restoration of the patient who has sustained minor injury. Although such an injury may leave little permanent, partial disability, that little may keep the patient on a nonproductive basis and on compensation for an unnecessarily long time. Adequate facilities for physical medicine in the local hospitals, in industrial clinics, and in physicians' offices can be arranged to provide physical restoration and rehabilitation services in smaller communities as well as in larger cities.

What is Meant by Adequate Care

The concept of what constitutes an adequate service in physical medicine and rehabilitation for the industrially injured patient has changed considerably from the concepts of physical therapy which existed ten to twenty years ago. No longer can one consider diathermy or a whirlpool bath, used for twenty to thirty minutes three times weekly, to constitute even basic physical therapy. The aim of the physical medicine and rehabilitation program is to hasten restoration of function of involved parts. Thus: (1) joints must be mobilized or their stiffness reduced; (2) muscular strength must be improved; (3) co-ordination, speed of movement and endurance must be augmented. In order to accomplish these things, treatment should be started as soon as possible following injury. Details of the treatment should be carefully prescribed by the physician and then should be carefully carried out by a staff of qualified therapists. Several hours daily should be devoted to the physical rehabilitation program of most patients. Often the patient must be instructed to carry out certain special activities and exercises when he is not directly under the supervision of the physician and therapist.

In order to provide a more tangible conception of what is meant by an adequate program of physical medicine and rehabilitation for the industrially injured patient, examples of two of the more commonly occurring problems encountered in caring for patients who have had occupational accidents will be presented.

Simple Muscular or Ligamentous Strain of the Back.—Of the 72,000 patients with compensable injuries in the series referred to previously,[3] 7,600 had injuries of the back. Approximately 85 per cent of these, or 6,500, experienced strains or sprains. Simple muscular or ligamentous strains are the most common injuries to the back.

For example, a worker, when lifting a heavy box, suddenly felt a pain in the lower part of the back. He had difficulty straightening to an erect position. He walked with his trunk in slight flexion and with a list to one side. In such a case, the physician must rule out serious injury to the bony structures and nerves, and this he does by carefully taking the history, performing thorough physical examination and obtaining roentgenograms. He attempts to evaluate the amount of pain, he notes the areas of localized tenderness and spasm, and he notes the degree and direction of limitation of motion.

Disability, on the average, for a simple muscular and ligamentous strain, should not be of long duration. If the patient is put at nearly com-

plete rest in bed for two weeks, if heat is regularly applied, if medication is given for pain, and if possible a board is kept under the mattress, he may obtain relief in one or two weeks and return to work. However, the functional capacity of the back muscles decreases rapidly with the disuse and inactivity incident to rest. Thus, when the patient returns to work he may have a relapse and the pain may recur. This increases his period of disability to a total of four or five weeks.

If, in addition to the treatment mentioned a moment ago, such a patient had been adequately treated with heat and massage during the first few days following injury, the pain and spasm probably would have improved. This should have been followed by a program of exercises graded so as to maintain muscular tone and gradually to increase the strength of the back muscles. Most patients so treated will be able to return to work early and will be in little danger of symptoms recurring since the muscles will not have had a chance to become "weak, soft or flabby" during a period of rest and inactivity. The physican should explain to the patient the importance of the program of exercise as part of his convalescent treatment.

Cuts and Lacerations of the Hand, Wrist and Forearm.—Of the 72,000 patients who sustained compensable occupational accidents, more than 25,000 (32 per cent) had lesions which involved the fingers, hands and forearms. The majority of the injuries were cuts and lacerations of skin, muscles, tendons and nerves. Amputations, fractures, burns, sprains and strains accounted for most of the other injuries of the hands and forearms.

Since the hand and forearm is the industrial worker's most important tool, injury to these parts challenges the physician to every effort to obtain maximal functional recovery. It has been said,[2] "The hand is a tool of tools, without being a tool; it steers the horse, holds the flute, builds the house, writes the book, grasps the sword. It knows no preference between the different vocations." One philosopher considered the hand as man's second brain. Its prehensile function has enabled man to develop the ideas of his brain by use of tools and machines. The hand also is an important sense organ. Its function as such is especially promiment when one is in total darkness or blind. The hand plays a part in perception of form, smoothness, roughness, size, weight, temperature and spatial relations. Its complex motor functions, dependent on many large and small muscles, highly specialized tendon arrangements, and multiple small joints, are controlled by a larger group of nerve cells in the brain than any other part of the musculature of the body. These factors have made possible the high degree of co-ordination that can be attained in many of the fine, highly skilled movements of the hand.

Mechanically, the hand has several basic motor patterns. First, it can function as a hook, which is formed by flexion of the four fingers on the palm. This provides the carrying power of the hand, whereby it lifts a suitcase or other object that has a handle. It can function as a pair of pliers or forceps for picking up small objects between the thumb and fingers, such as a coin, or in holding a pen or pencil. The grasping of larger objects requires use of the entire palm, all the fingers and the thumb. In the grasping of more minute objects, the thumb and fingers, primarily, are employed. In such acts opposition of the thumb and fingers is the essential movement, as it is in the majority of skilled activities.

Following injury to the hand and forearm, the physician attempts to evaluate the loss of function and disability by objectively measuring (1) the amount of limitation in the bony segments, which include the joints of the fingers, thumb, wrist and elbow; (2) the loss of power or strength of the muscles; (3) the lack of co-ordination and control of the parts from the brain through the peripheral nerves, and (4) the loss of sensation or feeling. It is measurement of these factors which provides an index of the function of the parts and is the basis of evaluation of disability.

In January, 1950, for instance, an employe of a laundry was attempting to close a partly opened window which had become stuck. His hands slipped and broke through the glass. He received a transverse laceration just above the wrist on the palmar surface. The median nerve, the tendons of two of the muscles that flex the wrist, and a portion of the tendons that supply the flexor muscles of the fingers were severed. After regional anesthesia of the arm and hand had been established, the wound was carefully cleaned, the divided tendons were identified and the ends pulled together by means of interrupted silk sutures. The ends of the median nerve also were identified and approximated with interrupted sutures of fine silk inserted through the sheath.

The edges of the wound then were sutured together and a plaster splint was applied in such a way as to hold the wrist in slight flexion. The fingers were left free so that they could be moved, both actively and passively, without the sutured structures being stretched or placed under tension. The injury to the nerve resulted in anesthesia of part of the palm, as well as paralysis of some of the small muscles of the hand, including those essential for the important function of opposition of the thumb and fingers.

The skin sutures were removed in ten days, and the wrist was splinted in a position of less flexion than before. Two weeks after the accident the patient felt considerable pain in the region of distribution of the injured nerve. Also, swelling of the second and third fingers persisted, although motion of the fingers remained fairly good. At this time (two weeks after the accident) intensive physical therapy was begun. The hand and arm were treated in the whirlpool bath for a half hour, twice daily. Also, a start was made in active-assistive exercise, which means that the therapist assisted in the movements that the patients could not carry out; moreover, exercises were prescribed for re-education of muscular function with the purpose of helping the patient to regain co-ordination of muscular activity.

Although the foregoing measures resulted in mobility of the wrist and fingers being well maintained, considerable pain in the wrist and hand continued for a month. The patient, in addition to the supervised physical therapy that has been described, was instructed in specific exercises to do at home.

While all concerned were waiting for the severed nerve to regenerate, atrophy of the paralyzed muscles of the hand was held somewhat in check by use of electrical stimulation. By this means, active contractions of the paralyzed muscles were caused to take place. Although this injury was very severe, resulting in total temporary disability of the hand, the patient returned to work six weeks after the injury, and was given supervisory work. The laundry also gave him time off daily for his physical therapy. In May, 1950, motion and strength were improving, and there was definite evidence of regeneration of the nerve. Without this follow-up treatment, it is probable that the period of disability would have been prolonged, the pain might have persisted for a longer time and the fingers might have been allowed to stiffen, secondarily to pain and swelling. The severity of the injury notwithstanding, the patient received compensation for a relatively short time. Good recovery is anticipated with little or no permanent partial disability.

Reasons for Present Inadequate Distribution of Facilities

Earlier, the following was quoted: "Physical restoration is the largest missing link in the treatment of the industrially injured." Why is this true?

There are a number of reasons why programs of physical medicine and rehabilitation have been slow in becoming available to the majority of industrially injured patients. First, owing to the recent evolution of the modern concept of this phase of medical care, many physicians have not had an opportunity to become thoroughly acquainted with the possibilities offered by such a program, to say nothing of becoming familiar with techniques and procedures, so that they can guide and supervise the therapists and other supporting personnel. This deficiency is gradually being overcome, as training courses are being offered to physicians in postgraduate courses and at medical meetings. Many medical students are taking courses designed to instruct them in such aspects of physical medicine and rehabilitation as can be applied in general practice as well as in many of the specialties. Some schools now have special courses devoted to the problems of industrial medicine so that certain physicians can become expert in the organization, management and supervision of industrial medical programs.

Second, there is a shortage of qualified physical therapists, so that most departments of physical medicine are not sufficiently staffed. As a result, this field of endeavor is constantly being encroached on by many self-styled physical therapists, so-called corrective therapists, masseuses, and out-and-out quacks, who exploit some single phase of physical treatment. Because of the highly specialized training of the therapist, as well as the shortage of available personnel, the cost of hiring enough qualified persons is necessarily high. Therefore, many institutions which could use three to six therapists may be limited to the employment of only a single individual or none at all. Since a single therapist can treat satisfactorily only ten to fifteen patients a day, it is obvious that a hospital with only one or two therapists can provide good service in physical

therapy to only an extremely limited number of patients. Although there are thirty-one schools approved by the American Medical Association for the training of physical therapists, the supply of graduates is far below the demand.

Third, hospital staffs and hospital boards often fail to see the economic advisability of setting aside space, and of providing personnel, for physical medicine and rehabilitation. They believe that the space could be more profitably filled with hospital beds.

Fourth, the allotments for medical care for the industrially injured which are included in some of the compensation and insurance plans may provide only limited or inadequate funds for physical medicine and rehabilitation.

Fifth, education of the public in regard to the importance of physical medicine and rehabilitation for the treatment of the industrially injured is incomplete. It is hoped that in the relatively near future, the patient with an industrial injury, who now takes for granted the use of the roentgenograms in diagnosis of his injury, can likewise expect to have facilities for physical medicine and rehabilitation utilized for his convalescent care.

Needs and Hopes

Facilities for physical medicine and rehabilitation should be available for the physical restoration of the industrially injured patient. Such facilities make possible more nearly complete and more rapid functional recovery, earlier return to work, shorter periods of disability, shorter periods of compensation, and lower insurance rates. It is only through the support and backing of physicians interested in the complete care of the industrially injured by employers, by liability insurance companies, and by the workers themselves, that the problems involved in providing better services for physical restoration and rehabilitation can be met.

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MASS SCREENING OR THE MULTIPHASIC CLINIC

(Continued from Page 729)

defects (as were found in the first pilot clinic) will be missed.

Careful study of all the data, on costs, procedures and on the acceptability of the various types of screening clinics will be necessary to determine whether the inclusion of a physical examination in a routine health protection or mass screening program is justified.

Conclusion

The mass screening program is being tested throughout many parts of the United States, using various techniques and procedures. Thus far it is apparently proving of some value. Although a mass screening clinic may miss certain physical disabilities when it is applied without a history and without a physical examination, it has proved to be effective in bringing to the attention of physicians suspected cases of some of the major killers. A mass screening procedure when utilized with a limited physical examination and detailed history has proved to be even more effective and is definitely a public health measure which merits further investigation, particularly in view of the inability of people to obtain regular, thorough physical examinations annually. Further study and development of techniques of mass screening will, no doubt, take many years. The final evaluation must await the thorough followup of both positive and negative findings before a final opinion can be given as to their value.

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Problems of Mid-pelvic Dystocia

By John L. McKelvey, M.D., C.M.
Minneapolis, Minnesota

IN SPITE OF marked progress which has been made in recent years in the understanding of the various features of obstetrical dystocia, this remains as one of the important causes of fetal damage and destruction. Maternal mortality studies have shown that dystocia which is unrecognized until labor is advanced all too often leads on to disaster for mother and baby, which could have been prevented. This is the justification for bringing the problem again to the attention of those who are constantly dealing with obstetrical problems.

In this discussion, only the part played by the bony pelvis will be considered. This does not suggest that the other factors associated with dystocia such as abnormal fetal size, position, and presentation, the function of the laboring uterus, and the problems associated with soft tissue resistance are not important. Indeed, the reverse is true. The time which is available will be spent on a discussion of that portion of the bony pelvis known as the mid-pelvis. This is to differentiate it from the problems of the pelvic inlet and those of the pelvic outlet. Much attention has been given to the pelvic inlet and it is true that it is in this plane that the majority of the bony pelvic abnormalities will be found. Interest has tended to move away from this since almost everyone who is practicing obstetrics, with very few exceptions, is conversant with the problems of the pelvic inlet and is using direct clinical measurements which can be accurately obtained and interpreted here. A strange change has occurred in our interpretation of the significance of pelvic outlet contractions, and it would seem fair to say that for the most part the demonstrable abnormalities of the pelvic outlet are of little significance at this plane, but produce their effect by their projection to a higher level, which may be called the mid-pelvis. The information dealing with the mid-pelvis is somewhat confused. Caldwell and Moloy introduced the concept of pelvic form, which has an application to mid-pelvic problems as well as to other things. A variety of attempts have been made to measure accurately the various planes of the mid-pelvis, but none of these have met with very general acceptance, apparently because of the difficulty of interpreting them into clinical prophecy. There is no question but that there is an important and fairly frequent abnormal protuberance of the ischial spines into the pelvic canal, but there is not even a generally accepted term to describe this. It is suggested that inter-ischial spines contractions be used.

On the other hand, an attempt will be made to demonstrate the fact that contractions in this mid-pelvic area are frequent enough to be of great clinical significance, are difficult to interpret, and are extremely dangerous when not recognized. This is due to the fact that they manifest themselves in disturbances of the normal mechanism and progress of labor so late that any form of therapy is, at best, a poor second choice. It is here that one may find the cause of most of the difficult and disastrous attempts at forceful delivery late in labor. Obviously, the solution lies in recognition long before labor begins, adequate assessment and therapy based on this.

Two things must be stressed at the very outset of this discussion. The first is that no borderline contraction of the pelvis can be interpreted by itself into a prophecy as to the outcome of labor. Those who are practicing obstetrics must learn, as accurately as possible, to estimate the size of the fetus which must pass through that given pelvis and must do this in such pelves sufficiently close to term so that little change in fetal size may be expected before delivery. The pelvis must not be assessed except in relationship to the fetus which must pass through it.

Secondly, there has been a great deal of criticism of the methods which have been designed to study the pelvis accurately. The mid-pelvis cannot be directly evaluated by clinical means. If one is not to use the accurate x-ray pelvimetry methods which are now available, the mid-pelvic contractions will simply not be adequately recognized, excluded, or assessed. Simple consideration of the problem can only lead to the conclusion that irrespective of how much one can interpret x-ray pelvimetry findings into clinical prophecy, the more we know about any given questionable bony pelvis, the better we are armed in the

Presented at the Eighty-fifth Annual Session of the Michigan State Medical Society, at Detroit, September 23,1950.

From the Department of Obstetrics and Gynecology, University of Minnesota Medical School.

handling of its dystocia problems. The information obtained by x-ray is frequently decisive. It is silly to object to obtaining and trying to learn to use accurate data. The problem is to try to learn to use it within its limitations.

Almost everyone who has done obstetrics will recognize the bony pelvis which presents a real block to labor. The definition of an abnormal bony pelvis which is generally accepted was set down by Michaelis and Litzmann nearly a hundred years ago. They and we conceive of a contracted pelvis as one which is sufficiently shortened in any of its diameters so that it is likely to interfere with the normal mechanism of labor. The clinical interpretation of this is that we should try to recognize those pelves which, with a given-sized fetus, are likely to produce situations which may lead to serious damage to mother or baby even though delivery can be accomplished from below. The object is to rid ourselves of the necessity of carrying out nasty mid and high forceps procedures and cesarean sections late in labor. In the light of our present knowledge, this can, with reasonable certainty, be accomplished.

Let me quote from the case record of a patient who was delivered in August of this year. She was twenty-one years old, and her only previous pregnancy had ended in the delivery of an anencephalic monster. Her expected date of confinement was not known, but the baby weighed 3540 grams at birth. Her pregnancy was uneventful. External pelvic measurements were normal. No internal pelvic examination was carried out. She began labor spontaneously, and at the end of eighteen hours with 4 cm. of dilatation, a simple anteroposterior and a similar lateral x-ray plate were made. The roentgenologist's report simply said there was no evidence of cephalopelvic disproportion. At the end of twenty-six hours of labor, an attempt was made to deliver the fetus by forceps to the floating head without success. The patient was put back to bed and fed by mouth. Two hours later the fetal heart tones disappeared. After thirty-one hours of labor and after five hours of full dilatation, another attempt was made at forceps delivery. There was no agreement among the observers as to the position of the head at this time. The patient vomited and aspirated, was re-anesthetized, and repeated this, and was finally forcefully delivered under local anesthesia. Shock, cyanosis, and pulmonary edema persisted, and the patient died. Re-examination of the x-ray films showed what was probably a contracted pelvic inlet, but below this level, the sacrum was rachitic and flattened. The ischial spines were markedly prominent, particularly that on the right. The patient apparently had both a pelvic inlet and a mid-pelvic contraction. This fatality will be charged as an anesthetic death. It should much more properly be attributed to a lack of recognition of the pelvic contraction, and as such was preventable. It is exactly this sort of thing at which the present discussion is aimed.

The factors which are involved in the problem of mid-pelvic dystocia are several. The whole pelvis may be funnel-shaped. The side walls, as seen in an anteroposterior x-ray film, may converge. The lateral bore, as seen in a lateral x-ray film, may likewise converge. The ischial spines which are normally separated by 10.5 cm. may protrude abnormally into the pelvic canal. The sacrum, which normally has a well-marked longitudinal cavity, may, usually as a result of childhood rickets, lose this concavity and seriously impinge upon the important hind pelvis at this level. Disturbances in pelvic form, particularly the android pelvis, may also contribute. The work of Caldwell and Moloy will not be discussed here. The size of the fetus, it should be stressed again, is all-important in interpreting the degree of these contractions into clinical outcome.

How does one recognize mid-pelvic contraction? A history of previous obstructive labor is obviously important. Three clinical findings are of the greatest importance. The first is obtained by simple palpation of the sacrum. The recognition by palpation of deviation from the normal sacral form, particularly in so far as the longitudinal concavity is concerned, should be noted in every single patient. Secondly, the ischial spines must be palpated. It is true that purely clinical evaluation of this finding is impossible, but abnormally protuberant spines can certainly be recognized by palpation. The third feature is obtained by the clinical measurement of the various planes of the pelvic outlet with which we are all familiar. A pelvis which has abnormally short transverse measurements of the outlet or an abnormally short posterior sagittal should be held suspicious in so far as mid-pelvis is concerned. It is the author's opinion that contraction of the outlet in itself is usually of comparatively little significance since its effects can be removed by simple soft tissue incision and repair. On the other hand, the significance of contraction of the pelvic outlet as an

indicator of a serious abnormality above that level cannot be too much stressed.

How does one go about getting an evaluation of the mid-pelvis? In very few sets of circumstances, clinical examination will allow a clear-cut decision as to therapy. Under most circumstances, it is impossible by clinical evaluation alone to adequately assess the mid-pelvis. X-ray pelvimetry findings in this mid-pelvic field are of most striking value. There can be no question but that it has taught us a great deal about the mid-pelvis and is often the deciding factor in the choice of therapy. Some accurate method must be used. One can be seriously misled by measurements obtained by inaccurate methods. A variety of methods for accurate x-ray pelvimetry have been described. The University of Minnesota Department of Obstetrics and Gynecology is impressed with the value and utility of the method described by Hodges and by Dipple. This allows the use of a non-precise x-ray machine. The actual tube shifts are calculated by simple formulas so that common source of error is excluded. Exact measurements of the various significant areas may be obtained at the expense of a stereoscopic pair of anteroposterior and lateral films, and a little simple arithmetic. The pelvis may be stereoscopically viewed from these as well.

What are the indications for such study of the pelvis? It is done only in the last four weeks of pregnancy for the purpose of protecting the baby from even this degree of x-ray exposure. Prior to that time, the fetus is so small that in the questionable pelvis at least, there is no dystocia problem. It is done in each patient who presents a suggestive or real abnormality of the sacrum, of the ischial spines, or of the pelvic outlet. It is done in all primiparous breeches, and in patients who give a history of previous unexplained mid-pelvic difficulty. It is not done routinely. It does not substitute for clinical examination, and is not done unless the clinical examination shows indications for it.

The interpretation is still difficult. This need not cause too much concern. This presentation is designed primarily to call attention to the fact that contraction of the mid-pelvis occurs, indications of its presence can be recognized, and accurate visualization of its details can be obtained. This much is not subject to disagreement. The interpretation of the detailed findings which will be given is the outcome of careful observation but is subject to the inevitable errors of human judgment. As such it may have to be revised. Anyone who will take the trouble to study the mid-pelvis will draw his own conclusions from experience. It is of major importance that the presence and degree of the abnormality be recognized.

In the presence of normal ischial spines and a non-convergent pair of side walls, a good deal of loss of vertical concavity in the sacrum will still allow safe pelvic delivery of a normal sized baby. Under normal circumstances, the ischial spines are separated by 10.5 cm. The lower limit of contraction here which will allow the passage of a normal sized child in the presence of a normal sacrum and an otherwise normal pelvis is about 9 cm. The department has one case record in which a patient with an ischial spines diameter of 8.2 cm. was delivered of a normal sized baby with bilateral depressed fractures of the skull. Above 3500 grams fetal weight, 9 cm. spines or less is a quite clear indication for elective cesarean section for the benefit of the child. It is in the field of combinations of abnormalities of mid-pelvis that the great difficulty of interpretation arises. Spines of 9 cm. with any significant loss of available hind pelvis as the result of loss of vertical concavity of the sacrum, is dangerous and is probably best treated by cesarean section in the presence of a normal sized child. 9.5 cm. spines at least are required under these circumstances for a fetus which weighs 3500 grams or more. It is dangerous to deliver babies presenting by the breech through any of these.

There is much still to learn about interpretation of mid-pelvic findings. It is clear that some expression of volume is required. No generally accepted method for doing this has yet been described. You are no doubt familiar with the various attempts which have been made in this direction. In the absence of this, one must be prepared to use what tools are available as carefully as possible. Recognition of abnormalities in mid-pelvis is by far the most important step and is the main object of this presentation. Each of us must learn by experience the details of interpretation. In the hands of the Department of Obstetrics and Gynecology, University of Minnesota Medical School, the use of these features seems to actually have decreased the cesarean section rate rather than increased it, and has almost done away with nasty and often mutilating forceps procedures. It would appear that this is an objective worth working for.

Dimercaprol in the Treatment of Acrodynia

By Thomas R. Kirk, M.D.
Petoskey, Michigan

THE FIRST description of acrodynia came from Germany in 1903, and it was classically described by Feer[3] as a "disturbance of general health (moroseness, restless sleep, poor appetite), loss of weight, continuous perspiration with skin erythema, aggravating itching, cyanosis of the cold, moist hands and feet with desquamation, restricted motility, tremor, increased pulse, increased blood pressure and trophic disturbances. The onset is usually insidious, seldom acute. Psychic disturbances usually appear first, and then the complete picture is developed." The cause of the illness was unknown, and the treatment was symptomatic, until Warkany and Hubbard[4] suggested mercury as the etiology in 1948, and Bivings and Lewis[2] used British Anti-Lewisite (dimercaprol) as the treatment. Since then several small series of BAL-treated acrodynia have been reported. Bivings[1] summarized fifteen cases from nine authors, who had had uniformly good results.

The cases herewith reported are examples of acrodynia, its course, and the results with dimercaprol.*

Case 1.—M.B., a twenty-one-month-old white girl, was admitted to Little Traverse Hospital with a four-week history of "hive-like" rash, irritability, poor appetite, 6-pound weight loss and fever. Her fever started with scratched, pustular eruptions five days before admission. During the last two weeks of her illness she cried at her mother's slightest touch. Thenylpyramine hydrochloride (Histadyl ®), diphenhydramine hydrochloride (Benadryl ®), parenteral penicillin, and sulfonamides had been given without improvement. Her mother denied any exposure to mercury in powders, ointments or liquids; but three days later she brought in some white wafers with which the patient had been playing for the last month. Her mother said they were chemical "heat tablets," and on analysis they proved to contain mercuric sulfocyanide. Her past history was negative.

On admission her weight was 27 pounds, temperature 101.4°, pulse 132, respirations 28, blood pressure 128/60. She cried at the slightest touch and usually lay with her face buried in the bedclothes. An urticarial rash covered the cheeks, entire trunk, and extremities, with an abrupt change at the plantar and palmar surfaces, which were smooth, red and dry. There were pustules on the buttocks. The inguinal nodes were slightly enlarged. The conjunctivae, nasal mucous membranes, and pharynx were suffused. The gums were swollen and red. She drooled profusely. The spleen tip was just palpable. Her extremities were weak and slightly wasted. In a forty-eight-hour urine specimen (720 c.c.) 100 gamma of mercury per liter were found. She was started on intramuscular dimercaprol 0.25 gm. per kilogram every four hours for forty-eight hours, and then every six hours for twenty-four hours, and then twice daily.

On the fifth day there was abrupt improvement. She drooled only slightly. Most of her photophobia had disappeared, and her urticarial rash was entirely gone. The redness of her palms and soles faded without peeling. Her blood pressure was 92/60, and her weight was 32 pounds. Her appetite improved and she was discharged after seven days of dimercaprol treatment. She has remained well since.

Case 2.—J. A., an eleven-month-old white boy, was admitted to Little Traverse Hospital with a three-week history of weakness, irritability, drooling, poor appetite, and weight loss of unknown amount. Daily for four weeks he had had 0.5 gm. mercury bichloride tablets in his diaper rinse. No other ointments, or powders, or liquids containing mercury were used. His past history was negative.

On admission he was a thin, slightly wasted, irritable patient with marked photophobia. His weight was 22 pounds, temperature 99.6°, pulse 140, respirations 30, blood pressure 110/70. He refused to stand. His soles and palms were red, moist, and cold. The conjunctivae were suffused. He drooled profusely. The rest of the physical examination was normal.

Routine blood, urine and stool examinations were normal. One hundred and seventy gamma of mercury were found in a twenty-four-hour urine specimen (480 c.c.). Dimercaprol, 3 mg. per kilogram every four hours for twenty-four hours, then every six hours for forty-eight hours, and then twice daily, was given. He improved so that in five days he no longer drooled, and his palms and soles looked normal. He stood in his crib and had only minimal photophobia. His blood pressure was 90/70. He was discharged after six days' treatment, and has remained well since.

Case 3.—S. H., an eighteen-month-old white girl, was admitted to Little Traverse Hospital with a four-month history of constipation, dysuria, oliguria, profuse perspiration, itching, painful hands and feet, pain on motion, sore mouth with a loss of one lower central incisor, and the loosening of another, and weight loss of unknown amount. Her onset followed a diarrhea treated with a proprietary bismuth preparation, after which mercury bichloride 0.5 gm. was used daily in the diaper rinse for her diaper rash. In three weeks her palms and soles peeled and then remained red, cold and moist. She refused to stand or walk, and sat up only briefly. Her appetite was poor for the entire illness. Although she drank water copiously, her urine was scanty and

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* 10 per cent solution of dimercaprol in peanut oil with 20 per cent benzyl-benzoate manufactured by Hynson, Westcott and Dunning, Inc., Baltimore, Maryland.

Unsuspected Ruptured Interstitial Pregnancy of Eighteen Calendar Weeks' Development

By Nicholas J. Kohlerman, M.D., and
Harold D. Priddle, M.D.
Detroit, Michigan

RUPTURE OF an ectopic pregnancy or spontaneous uterine rupture may be fatal since medical care is sought too late or the physician fails to recognize quickly the cause of the patient's moribund state and to institute blood transfusions and prepare for exploratory laparotomy as soon as possible. The interstitial portion of the salpinx is the least frequent nidation site in tubal pregnancy, although a few cases of this type of pregnancy might conceivably terminate normally at term as a result of spontaneous rupture into the uterine cavity at a very early stage, with continued growth and development.[1,2] Such a pregnancy might conceivably rupture into the uterine cavity, and spontaneous abortion might follow.

The interstitial portion of the tube, traversing, as it does, the thickness of the myometrium, necessitates the growth of any contained gestation within the wall of the uterus. By such development within the myometrium the early gravid symptoms and signs would simulate, at least to some degree, a normal intra-uterine pregnancy; thus diagnosis may be difficult or impossible prior to surgery. The support given the developing conceptus by the uterine muscle cells, which hypertrophy as part of the gravid state, usually maintains an interstitial pregnancy past the average time for rupture of a tubal ectopic pregnancy, and many such may be carried on for fourteen to eighteen calendar weeks before signs of rupture occur.

The rupture of an interstitial pregnancy is practically always sudden and dramatic, and there may be immediate onset of shock, which, if not adequately treated, will result in death. These cases have been known to terminate fatally within one hour of the first signs of rupture.

The case to be presented surely began to rupture some four hours prior to admission on October 28, 1950, and inasmuch as this was the first time she had been seen by us, diagnosis was somewhat difficult, especially since she had been assured by her own physician that she could "expect delivery in early December."

From the Department of Obstetrics and Gynecology, Wayne University College of Medicine, and the Obstetric Division, Herman Kiefer Hospital, Detroit.

Case Report

L.H., a thirty-two-year-old, married, colored woman, a non-clinic patient, was admitted to the Obstetric Division of the Herman Kiefer Hospital on October 28, 1950, with the complaint of persistent lower abdominal pain of four hours duration. While at breakfast she felt nauseated, went to her living room to lie down, and half an hour later her husband found her unconscious and vomiting. She was admitted to the hospital four hours later with the following findings:

She was a well-developed, slightly obese Negress in moderate distress and slightly lethargic. Examination of the head, neck, thyroid and cervical glands were not remarkable. Ophthalmic examination revealed normal fundi except for pallor. The heart was normal to percussion and on auscultation. The lungs were clear to percussion and auscultation. The breasts were of a normal gravid consistency for a pregnant multipara. The abdomen was round but not rigid or tender, and there was no evidence of trauma nor operative scars. A large mass extended up out of the lower abdomen to 6 centimeters above the umbilicus and this mass was diffusely and intrinsically tender and soft. No signs of peritoneal irritation were present. Her first admission blood pressure was 80/30; the pulse was 68, regular, full, and of good quality; respirations were 20. The patient was rather annoyed at all the palpation, and her only comment was that if we would stop palpating her abdomen she "would be all right." At no time did she complain of pain other than when the abdominal mass was palpated. Intravenous fluids were started and arrangements for grouping and cross-matching made. Ten minutes later, her blood pressure was 30/0; pulse 70, still of good quality; and respirations 18. Her extremities were warm, she was well hydrated, and none of the usual signs of shock were present; she was, however, treated at once for shock, in that intravenous fluids, blood transfusions and continuous nasal oxygen were administered. There was no vaginal bleeding.

A rectal examination at this time was unsatisfactory, so she was taken to the delivery room, where a sterile vaginal examination was performed. The cervix was found to be 3 to 4 centimeters long, closed, and the mucus plug was intact and *in situ;* no cervical bleeding was present. There was no history of bleeding or spotting, and careful questioning of the patient and her husband, pre- and postoperatively, revealed no story of trauma, either external or that attendant upon coitus at this stage of pregnancy. Her conjunctivae at this time were pink. It was felt by one observer that this clinical picture might be on the basis of a brain lesion; a surgeon saw the patient and was also puzzled as to the diagnosis, stating that there did not seem to be any free fluid in the abdomen. The possibility of pheochromocytoma was also entertained. By this time,

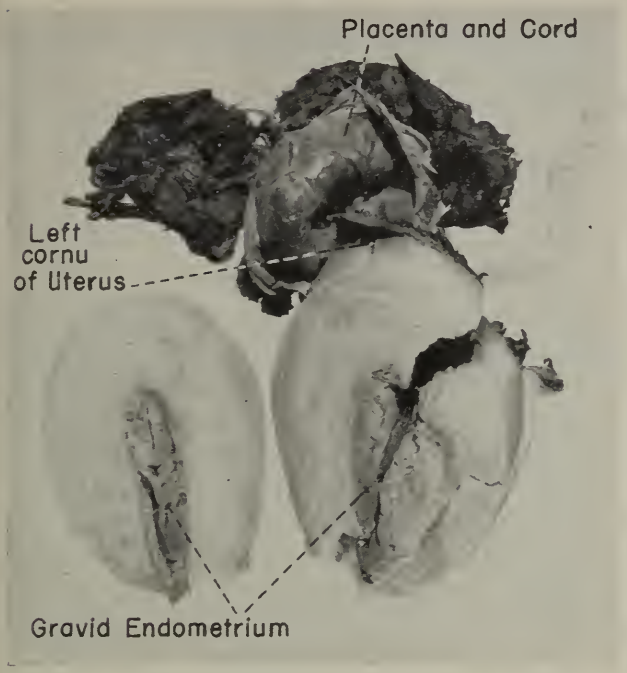


Fig. 1. Sagittal section of uterus showing the site of uterine rupture.

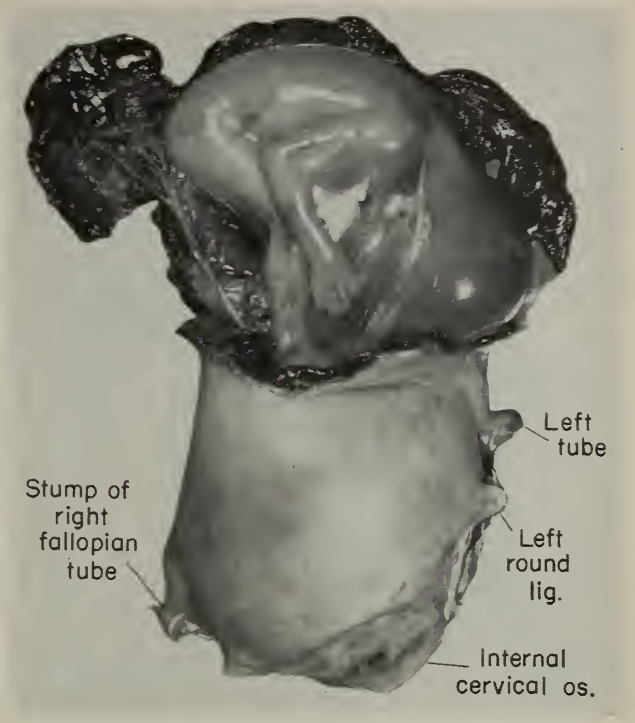


Fig. 2. A view showing the relationship of the uterine rupture site and intact amniotic sac containing the fetus with the placenta.

however (one hour following admission), her uterus became more tender and some slight evidences of peritoneal irritation appeared. The blood transfusion had elevated her blood pressure to 68/30. Abruptio placentae was considered because of the increasing "uterine" tenderness. The level of the fundus, however, which had been marked on the abdomen in ink on admission, had not changed its position.

Because of these early signs of peritoneal irritation, sterile vaginal examination was repeated and a cul-de-sac tap was performed. The first tap revealed nothing, but with a larger needle, a No. 18, 15 cubic centimeters of dark red blood, which did not coagulate, was easily aspirated. A diagnosis of ruptured uterus was made at this time and an exploratory laparotomy was done immediately under closed system gas-oxygen-ether anesthesia. Upon opening the abdomen, approximately 3,500 cubic centimeters of blood and clots were found. When this was partially removed, an intact amniotic sac, containing a small fetus (which weighed 11 ounces), was discovered, and the sac was attached to a placenta that was partially detached. It first appeared as though an abdominal pregnancy was present, but on palpation it was found that the greater portion of the uterine fundus was ruptured, there being a ragged, bleeding crater measuring 10 to 11 centimeters in diameter, with a portion of the placenta still attached in the base of the uterine crater (Fig. 1). A subtotal hysterectomy was performed rapidly, and the patient was returned to the ward unconscious and in fair condition, having received a total of 3,000 cubic centimeters of whole, citrated blood intravenously, most of which was pumped in during the operative procedure in order to maintain an adequate blood pressure.

Upon return to her room, her blood pressure had risen to 124/80. During the next twenty-four hours her temperature reached 104°. She was given streptomycin therapy (250 milligrams every three hours), and 300,000 Oxford units of procaine penicillin were administered twice daily. On the second postoperative day her temperature was 103°, and it was normal on the third day and remained there for the rest of her stay. She received two additional 500 cubic centimeter blood transfusions during the first forty-eight hours following operation. On the evening of her third postoperative day the patient, being ambulant and symptom-free, insisted on signing a release from the hospital because she stated she was well and wanted to go home. When she returned five days later for removal of sutures she was in good general condition, and the wound was healing well.

This patient had been followed for approximately one month by her own physician and according to his findings was believed to have had an expected date of confinement of December 15. The preoperative level of the uterine fundus suggested a duration of about twenty-six to twenty-eight weeks, but examination of the specimen at time of laparotomy showed it to be an eighteen-week pregnancy. The pathological report was: "Pregnancy, interstitial, ruptured, with normal fetus and placenta of about eighteen weeks gestation."

Discussion

In this case of spontaneous rupture of an eighteen-week interstitial pregnancy into the abdomen, the history of a supposedly normal gestation and the primary lack of the usual signs of peritoneal irritation and shock made the diag-

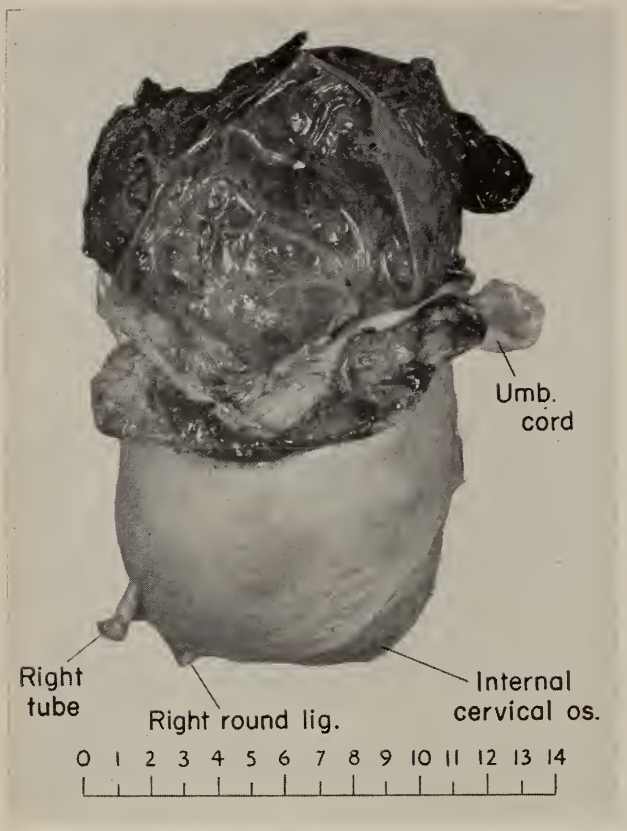


Fig. 3. The ruptured uterus with the placenta as found at the time of laparotomy.

nosis difficult at first. The alertness of the patient and the slow pulse also were baffling. As the uterine rupture proceeded, and the intraperitoneal bleeding increased, the clinical picture changed, however, and a cul-de-sac puncture permitted the aspiration of blood, so laparotomy was performed without further ado. We assume, therefore, that the rupture of this cornual pregnancy may have been attended by *gradual* separation of the placenta and extrusion of the conceptus, with *gradually increasing* bleeding from the uterus into the peritoneal cavity.

Summary

A case of spontaneous rupture of an eighteen-week interstitial pregnancy is presented. The diagnosis was difficult for the first hour following hospital admission because (1) the uterine fundus apparently extended up to 6 centimeters above the umbilicus (suggesting a twenty-six to twenty-eight week intrauterine pregnancy), (2) there was no clinical evidence of shock, (3) no peritoneal tenderness nor any gross evidence of intraperitoneal fluid were present, and (4) the patient was fairly

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Hematoma of the Vulva during Labor

Case Report

By Harry Kirschbaum, M.D., and
Lloyd Mallin, M.D.
Detroit, Michigan

HEMATOMA of the vulva occurring spontaneously during labor in a primigravida is one of the rarest of obstetrical accidents. DeLee states that in 64,000 routine cases, only seven cases of large hematomata occurred. Of added interest in the case we are reporting is the fact that the blood loss due to the hematoma was great enough to necessitate transfusion.

Case Report

The patient, a nineteen-year-old white primigravida, was admitted to the Woman's Hospital at 3:00 A.M. on October 5, 1939, at term and in active labor. Her pregnancy had been uneventful except for slight ankle edema during the last two months. Physical examination at the time of admission to the hospital was essentially negative. The blood pressure was 142 systolic and 84 diastolic. No varicosities of the labia were present. There was no albuminuria.

After eleven hours of labor the cervix was dilated 6 centimeters. Despite hard uterine contractions she made no further progress for seventeen hours, and at 7:00 a.m., on October 6, the fetal heart tones could not be heard. At this time we saw the patient in consultation. She was given morphine gr. ¼ hypodermically. Ten per cent glucose in normal saline was administered intravenously. The labor progressed slowly, and at 3:00 p.m. on October 6, dilatation of the cervix was complete. The duration of the first stage of labor was thirty-six hours.

Concurrent with complete dilatation a rapid swelling of the left labium appeared, forming a mass measuring approximately 3 by 6 cm. During the subsequent thirty minutes the swelling extended from the midline of the perineum to the pubis, reaching a size of approximately 6 cm. in diameter. The mass appeared tense, shiny and bluish in color.

The patient was then taken into the birth room and the skin was incised over the hematoma. A large quantity of freshly clotted blood was evacuated from this mass which extended up to the symphysis pubis. No bleeding vessels were seen. A right medio-lateral episiotomy was performed, and a still-born infant extracted with forceps. The umbilical cord was tightly looped around the baby's wrist and shoulder. Autopsy of the infant disclosed a diaphragmatic hernia and imperforate anus.

The episiotomy was sutured with chromic catgut and

(Continued on Page 827)

Epidemic Diarrhea of the Newborn

By Rockwell M. Kempton, M.D.

Saginaw, Michigan

DIARRHEA is the most serious infection which occurs in the newborn period. While the death rate from all causes for infants under one month has shown a reduction over the past fifteen years, it is a disturbing fact that the *diarrheal death rate* for infants under one month has been gradually rising during the same period. Epidemics of diarrhea in newborn nurseries have been reported in all countries, and the condition seems to be on the increase.

There is some question whether epidemic diarrhea of the newborn constitutes a single entity with a specific cause. At the present time it would seem that quite a variety of organisms and perhaps viruses may be responsible for the disease. Nevertheless, this type of diarrhea presents a clinical pattern which is so characteristic and is so highly contagious and has such a high mortality rate that it seems wise to classify epidemic diarrhea of the newborn as a specific disease. The committee of the MSMS studying this problem have defined the disease as follows: "Epidemic Diarrhea of the Newborn is a communicable disease frequently of undetermined etiology occurring in hospital nurseries and characterized by a high fatality rate."

One need only to follow the state and national newspaper reports to become aware of the seriousness of the situation. Epidemics of varying degree break out in hospitals both large and small from one end of the country to the other. No hospital should consider itself immune merely because it has never had the problem to deal with. Tomorrow or next month may be your turn.

It is easy to understand why the danger of this disease seems to be increasing. Modern obstetrics demands that mothers go to the hospital for delivery. That the modern hospital is the safest place for childbirth has been well demonstrated by the constantly falling maternal death rate. Approximately 96 per cent of all deliveries in the State of Michigan take place in hospitals. But as the hospitals become more crowded, hazards to the infant are bound to increase and particularly so with regard to the danger of diarrhea.

Every hospital must become aware of the seriousness of this problem so as to avail themselves of the known methods of preventing such outbreaks. Best results are obtained when the chiefs of obstetrics and pediatrics and the hospital administration are in accord regarding nursery policies. It is essential that a room be available for the prompt isolation of any newborn showing diarrheal stools even though the baby may not appear sick. While some perfectly healthy infants may show a tendency to loose stools about the time the stools begin to change from meconium to the fecal type, it is far safer to isolate such infants for a few days until those in charge have assured themselves that the case is not diarrhea. Like fires, it is far better to prevent nursery epidemics than to battle them after they start.

This is the first of a series of articles bearing on this important subject written by various members of MSMS qualified by their experience to present the various phases of the problem.

MSMS

TV AND RADIO SHOWS FEATURE MICHIGAN MEDICINE

(Continued from Page 714)

often than not taken for granted by their neighbors and patients.

But when they reach out to a wider audience, linked to the doctor by radio or television, one point becomes clear: the layman is eager to gain a better knowledge of medicine—especially when it affects his own life.

The gratifying response to the television and radio shows of MSMS is the proof.

Every media available to the Michigan State Medical Society is being used by its P.R. Department to bring information to the public.

The co-operating Doctors of Medicine, appearing on the television programs, create a highly favorable impression. The televiewers see in them the ideals inherent in the medical profession. They recognize that the Doctor of Medicine is not only one who serves but one who is also teacher and friend, close to their lives.

During the twelve-year period, 1937 through 1948, 1,109 patients with nodular goiter were operated upon at Massachusetts General Hospital. The incidence of goiter was 10 per cent in all nodular goiter and 19 per cent in solitary thyroid nodules.

Maternal Health Committee Report

This case report is submitted by the Maternal Health Committee of the Michigan State Medical Society. This committee is authorized by the Michigan State Medical Society to make an investigation of all maternal deaths in the State of Michigan. The case reports and investigations are submitted to a reviewing committee. The reviewing committee is submitting for publication certain case reports which present information of educational value. The following report is submitted:

A twenty-eight-year-old, white woman, gravida vi, para iv, abortus i, was seen at intervals by her attendant during the pre-natal period. The only unusual observation was the repeated spotting of blood during the first and second trimesters. At eight and a half months of gestation the patient was hospitalized at 1:45 p.m., not in labor, but with evidence of severe exsanguination. She continued to expel bright red blood and clots from the vagina. She was examined by the attendant at 2:30 p.m.; she was not in labor, the skin was pale, the pulse weak, the blood pressure was not taken. The attendant's diagnosis was placenta previa. There was no written observation of the size of the baby, fetal heart tones, condition and state of the cervix. An order for hemoglobin determination, typing, cross-matching, enema, and 4 minims of pituitrin was written. The hemoglobin determination was 22 per cent. The administration of pituitrin was followed by a few painful contractions. At 3:00 p.m. she was described as cold, clammy and her color poor. A second dose of 4 minims of pituitrin was ordered and given at 3:20 p.m.; glucose in water was started intravenously. At 3:25 p.m. an additional 6 minims of pituitrin were given. The bleeding continued excessively and her blood pressure could not be obtained. One hour later, at 4:25 p.m. a manual dilation of the cervix and an internal podalic version and extraction of a 5 pound 12 ounce living boy were done. The infant was very pale. No anesthetic was administered. The placenta was removed manually, and at 4:35 p.m., according to the record, there was no further hemorrhage. At that time she received 1 c.c. of pituitrin intramuscularly, ergotrate gr. 1/320 intravenously and ergotrate gr. 1/320 intramuscularly. At 4:40 p.m. intravenous administration of blood was attempted. Technical difficulty and the collapsed state of the veins prevented the insertion of the needle for twenty minutes. Finally an incision was made and the blood started at 5:00 p.m. Also coramine was given and artificial respiration started. At 5:25 p.m. she was dead.

This maternal death is believed to be preventable and due to failure of adequate replacement of blood loss in a sufficiently prompt fashion. The hospital had no blood bank but a neighboring hospital two miles away had an adequate supply of blood. The use of accouchement forcé has long been abandoned in obstetrical circles. The use of such doses of pituitrin under such circumstances as were present in this instance is considered injudicious. There seems to be no excuse for the conduct of such major complications without adequate consultation and replacement of blood loss.

DIMERCAPROL IN ACRODYNIA

(Continued from Page 739)

concentrated, and her stools were small and hard. She lost her tooth in the third month of illness.

On admission she weighed 24 pounds 12 ounces, temperature 98.6°, pulse 132, respirations 24, blood pressure 126/80. She was weak, wasted and irritable with moderate photophobia. She had profuse perspiration with wet, cold, red soles and palms. Her conjunctivae, nasal mucous membranes and gums were red and full. The lower right, central incisor was out, and the left was loose. Routine blood, urine and stool examinations were normal. There were 200 gamma of mercury per liter in a twenty-four-hour urine specimen (190 c.c.). Films of the long bones were negative for heavy metal lines.

On the second hospital day she was started on dimercaprol 2.5 mg. per kilogram every four hours for twenty-four hours, then every six hours for forty-eight hours, then twice daily. She improved rapidly. She was sitting alone in three days and had a good appetite by the end of one week. The drooling and perspiration had stopped. On discharge from the hospital on the ninth day she was walking, had no photophobia, and the left lower central incisor had tightened up. She gained 7 pounds 14 ounces, and her blood pressure dropped to 96/60. The patient has remained well since discharge.

Conclusion

These three patients illustrate the symptom complex of acrodynia, the ease of exposure to mercury, and the long, trying illness in the susceptible youngster. In these three infants, as in the other series recently reported,[5] dimercaprol has been uniformly successful.

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Burns Clinic.

Doctors and Dollars

A Study of Professional Incomes and Expenses

By Henry C. Black and Allison E. Skaggs

Battle Creek, Michigan

FOR many years we have had the opportunity to study first-hand the many ramifications of the business side of medicine and from time to time have reported through this JOURNAL some of the results of these studies. Believing our observations of the incomes and spending habits of doctors during the past few years would be especially interesting, we have consented to present them here in two articles, the first covering trends in professional incomes and expenses, and the second, trends in the personal spending and saving habits of doctors in this area.

As many JMSMS readers know from previous articles written for this JOURNAL, our source of information is most confidential as far as individuals are concerned. However, when such accurate figures are presented in averages, they make available the experience of typical successful physicians classified as to size of community, type of specialty, and size of income, without in any way disclosing what would otherwise be privileged information.

Obviously, such a study requires a selection of sources, and to determine year-to-year trends, we elected to eliminate from the averages the figures of all doctors we had not been serving three full years or more, of all doctors who were not already well established three years ago, and of any which unusual circumstances made atypical. This left us with slightly over 300 sets of individual figures, and it might be interesting to note that the group having net professional incomes from $17,500 to $22,500 comprised 28 per cent of the total, and the several groups having incomes of less than $17,500 comprised over 30 per cent of the total. The numerical average net professional income of all groups studied was approximately $19,000, a far cry from the "fabulous" incomes which the public frequently associates with the practice of medicine!

"Overhead" is a term generally used to describe necessary costs of producing income, and one of the principal expenses making up the doctors' overhead is the salaries paid to office assistants, secretaries, receptionists, nurses, and laboratory technicians. Every year since 1941 we have made comparisons of the rate of salaries paid in each office we serve. Since 1941 when the average was $88.50 per month, the rates have increased to an average of $228.50 per month in 1951. This is an increase of over 150 per cent and amounts to over two and one-half times what was being paid ten years ago.

Due primarily to the war, the big increases came in the first five years of that period (as much as 15 to 20 per cent per year). Increases during 1946-47 were about 10 per cent per year—in 1948-49 less than 5 per cent per year, while in 1950, with the rising inflationary trend, the increases were again almost 10 per cent and the trend may well continue. In spite of this, we believe that capable, well-trained office assistants are still the biggest asset in any office, and compared with other costs are still worth all they receive.

Overheads, in general, have been of more recent significance to us than the relationship of one expense to another. For example, low rents in rural areas are offset by higher automobile expense and more dispensing of drugs. Surprising as it may seem to some, the size of the community has little if any effect on the percentage of overhead to gross income. It might also be stated here again that group practices and medical partnerships (assuming all personal business expenses are included) have almost exactly the same cost to volume ratios as do individual practices.

So far, in the past years, overheads have increased little more than have incomes. Slight increases in gross income per doctor have occurred since 1946 which was the only year since 1938 when the average income per doctor decreased rather than increased.

The present trend of rising costs, particularly office rents, drugs and car expenses may affect the percentage of overhead, but we are inclined to believe that, even though most doctors are trying to keep their fees as low as is reasonably possible, the inflationary trend will show up in incomes about as much as in expenses.

A study of overheads as affected by specialty and size of practice is much more significant. For example, the ratio of overhead to gross income varies in general with the size of the individual doctor's practice. Extremely large practices have

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Detroit Surgical Association

MEETING OF FEBRUARY 26, 1951

Acute Cholecystitis

LAURENCE S. FALLIS, M.D., and
JAMES BARRON, M.D.

Division of General Surgery
Henry Ford Hospital, Detroit, Michigan

The varying results noted in the surgical literature on the subject of acute cholecystitis are due in good part to the methods used in selecting cases for study. The clinical and surgical diagnoses often are at variance with the pathological report. In selecting cases of acute cholecystitis for this study we have therefore included only cases showing microscopic evidence of polymorphonuclear infiltration of the gall-bladder wall.

During the decade 1940-1950, 187 such cases were operated upon at the Henry Ford Hospital and of this number almost one-half (47.2 per cent) were not admitted until the attack was of more than forty-eight hours' duration. Thus the time necessary for the preoperative preparation of these patients would place a large number well beyond the seventy-two hours' time limit when surgery could be considered. This, then, is the crux of the matter. Sufficient evidence has accrued to demonstrate that immediate operation can be safely undertaken if the patient is seen within the first forty-eight hours of the attack, but few patients are seen by surgeons during this period. It is our practice to defer operation on patients seen after forty-eight hours has elapsed since the onset of the attack. Since the acute attack in the average patient subsides after seventy-two hours it is obvious that persisting symptoms after this period represent some complication of the attack such as empyema of the gall bladder, associated pancreatitis or impending gangrene of the gall-bladder wall. Cholecystectomy on this group of patients will result in a higher mortality and, above all, a greatly increased morbidity (29.3 per cent of this series).

The adoption of a nonoperative or conservative regimen does not mean that the patient can be left unattended. Frequent careful appraisals of the situation must be made. Indications for surgical intervention regardless of the age or condition of the patient are persistence of the local tenderness indicating increasing tension on the gall-bladder wall and a leukocytosis of over 20,000 indicating impending gangrene of the gall-bladder wall.

In the majority of patients in whom operation is mandatory and especially in the older age groups and very ill patients the procedure should consist of cholecystostomy performed under local anesthesia. Data supporting this viewpoint was presented by charts and illustrations.

Vein Ligation for the Prevention of Thromboembolism

GEORGE E. WILSON, M.D., HOMER M. SMATHERS, M.D., and E. A. OSIUS, M.D.

Veterans Hospital, Dearborn, Michigan

From 1947 to 1950 inclusive 199 vein ligations were performed on 140 patients who were thought to have venous thrombosis. The superficial femoral vein was ligated 168 times, the common femoral twelve times, the vena cava ten times, the saphenous seven times and the common iliac twice. Fifty-three per cent of the patients were from the general surgical service. In twenty-eight patients venous ligation was accomplished because of the recent occurrence of pulmonary embolus. Pulmonary embolus recurred in five of this group, and in addition appeared nine times following ligation for thrombophlebitis. Ten of these fourteen patients with post ligation embolus had had unilateral superficial femoral vein division, and in three others a clot was removed by suction from above the point of ligation. The one remaining patient in this group of fourteen had had bilateral femoral vein ligation followed in three months by another embolus. Ligation of the inferior vena cava has given freedom from emboli for two years. There were five deaths among these fourteen pa-

tients, two of which could be attributed to the post ligation embolus.

The authors believe that venous ligation is a safe and satisfactory method of preventing pulmonary embolus in patients with thrombophlebitis providing that sumultaneous bilateral peripheral ligations are performed, and that the point of ligation is above the position of the thrombus.

The Use of Whole Thickness Skin Graft in the Repair of Recurrent Pelvic Prolapse

Earl G. Krieg, M.D.

Grace Hospital, Detroit

Recurrent pelvic prolapse which follows conservative repair in expert hands presents a difficult situation. Methods of control that have been employed are (1) a cup pessary, (2) colpocleisis by the LeFort method, (3) total ablation of the vaginal canal. There are objections to all of these especially in the younger age group. A reconstruction which permits conservation of structure and function is to be desired. The author's method, which was described in detail, sought to provide support for inadequate tissues by introducing a full thickness skin graft. This graft is best obtained from the vaginal mucosa as one makes the approach incision, and is then slung on each side from the pubis to the rectum. All possible use is made of remnants of normal supporting structures, to be reinforced by the graft.

Six cases of recurrent pelvic prolapse have been repaired by this conservative method and have been followed from six months to three years. There have been no complications or failures.

Blood Transfusion Reactions

E. R. Jennings, M.D., and O. A. Brines, M.D.

Department of Pathology, Wayne University College of Medicine & Detroit Receiving Hospital

In the interval between March 1, 1948, and March 1, 1951, approximately 15,000 blood transfusions were performed at the Detroit Receiving Hospital. During this period 100 transfusion reactions were reported to the laboratory for investigation. Probably this is more than a fraction of the total number that occurred and one can learn little from the statistics presented as to the true incidence of the various kinds of reactions. For example, only four cases of homologous serum hepatitis came to our attention, a surprisingly small number.

The following is a list of the types of reactions which comprised this group: sixty-two simple febrile reactions, seventeen hemolytic reactions, fourteen allergic reactions and seven reactions due to bacterial contamination of the blood. Of the seventeen hemolytic reactions, three were due to Rh incompatibility (anti-D or anti-Rh_0). No examples of other Rh antibody production were found to result from blood transfusion. Fourteen reactions were due to incompatibility in the ABO systems. Six were the result of laboratory error while the remainder were caused by mistakes on the wards or in the operating rooms.

The purpose of this communication is to reemphasize the hazards of blood transfusion and to suggest that, because at present it is impossible to completely eliminate the above described complications, the indication for each transfusion be carefully considered.

Amputations of the Leg

A. Jackson Day, M.D., and
Herbert E. Pedersen, M.D.

Veterans Hospital, Dearborn

The primary purpose of an amputation is to relieve an incurable dysfunction of an extremity, with the secondary objective of substituting the best possible function in the extremity. This means as long a stump as possible providing it is at a site of election, a good amputation stump, good function of the stump, and the fitting of a good prosthesis.

Two types of amputation were done in the cases reported, below the knee and above the knee. The techniques of both were described and fulfilled the requirements of good amputation stumps as outlined by Le Mesurier in 1943. During the past four and one half years seventy amputations of the leg were performed, twenty-nine below the knee and forty-one above. Fifty-one were done for peripheral vascular disease and nineteen for a variety of causes such as osteomyelitis with non-

union of a fracture site, transverse myelitis, old nerve injuries and bone tumor. There were no deaths within sixty days after surgery. Femoral vein ligation to prevent embolism was done only once and in this instance subsequent pulmonary infarction occurred. There was one other instance of pulmonary embolism which occurred two months after amputation and in association with cardiac decompensation. A tourniquet was used in sixty of the seventy cases. The authors believe that the use of the tourniquet minimizes blood loss, diminishes the element of shock, shortens the operative time, and makes possible a more meticulous technique. They further believe that there are no harmful effects produced by the temporary ischemia.

Complications were minimal and consisted of delayed healing. Reamputation was necessary six times in below-knee and twice in above-knee amputations, and all were in the vascular group. Considering the large number of elderly patients with complicating cardiac disease and other infirmities a large number were made ambulatory in prostheses.

MEETING OF APRIL 23, 1951

Subphrenic Abscess

Duncan A. Cameron, M.D., and
Edwin M. Sykes, M.D.
Receiving Hospital, Detroit, and
Veterans Hospital, Dearborn

Thirty-nine cases of subphrenic abscess were analyzed. The average age was forty-seven years and males constituted 85 per cent of the group. Abscesses were located on the right in twenty cases, on the left in fifteen, and bilaterally in four. All cases except one were treated surgically.

Perforated peptic ulcer was the etiological agent in 30.7 per cent of the cases, abdominal trauma (gunshot, stab, and blunt wounds) in 25 per cent, and biliary tract disease in 15.3 per cent. Approximately 25 per cent of the cases followed elective upper abdominal surgery. Abscesses secondary to hepatic abscesses were not included in this series.

Surgical approaches employed were of four types —posterior retroperitoneal (thirteen cases), anterior extra-peritoneal (thirteen cases), transperitoneal (twelve cases), and transpleural (six cases). It was necessary in some cases to drain an abscess more than once. The anterior extraperitoneal approach gave the best results, especially in right suprahepatic abscesses, where in no instance was pus localized to the posterior superior space. It is felt that abscesses localized solely in the latter space are rare; that elevation of the diaphragm or its immobility over such a small space could not be easily detected roentgenologically; and that in most right suprahepatic abscesses involving this space there is a greater simultaneous involvement of the anterior superior space.

Five deaths occurred in thirty-eight operated cases, a mortality rate of 13.1 per cent. However, three of the five were associated with continuing leakage of faulty gastric anastomoses (two total gastrectomies, one subtotal gastrectomy). These deaths cannot be readily charged to the operative procedure employed in draining the subphrenic abscess, and if exclusion of these three cases were allowed, a corrected mortality rate of 5.7 per cent is obtained.

LET OUT

(Continued from Page 716)

Through all the years, I have never heard a member of the Commission ask any question but, "What's best for the kids?"

But the governor knows best—and so now an osteopath moves in.

There are compensations. I am still Alpena's crippled children chairman, a position I hold proudly, president of the Michigan Society for Crippled Children, a director of the National Society.

There is still much to do, to Keep On Keeping On, as Frank Foley used to say.—Editorial, *The News,* Alpena, May 18, 1951.

Detroit Physiological Society

ANNUAL MEETING, MAY 17, 1951

A SYMPOSIUM

"Chromatography—A Basic New Tool In Medical Research"

Survey of Chromatography Techniques, and Specific Application to Problems of Drug Metabolism

ANTHONY J. GLAZKO

Parke, Davis and Company, Detroit

Chromatography is usually regarded as a method for the separation of chemical substances by differential absorption. However, mechanisms other than absorption are often involved, such as ion exchange reactions and the partition of solutes between fixed and mobile liquid phases. The earliest approach to column chromatography was reported by Day (1898), who forced crude petroleum through columns of limestone and obtained fractions with different chemical properties. This has more recently been elaborated into a system of *"frontal analysis,"* where each fraction emerging from a column is superimposed on the preceding fractions. Tswett (1906) was responsible for the first cleancut separation of chemical substances. He applied a small amount of a crude extract to one end of a column, and then developed the chromatogram by percolating an organic solvent through the column. Following the development process, the contents of the column could be extruded and the various bands isolated, or the development process could be continued until the bands appeared separately in the solvent leaving the column (*"elution development"*). A further modification of this technique depends on the addition of a substance to the developing solvent which is more strongly absorbed than the solutes under investigation, with consequent *displacement* of the less readily adsorbed substances.

Ion-exchange chromatography has found extensive applications in the past few years due to the development of a series of insoluble synthetic resins which behave as acids or bases, exchanging an H^+ or OH^- for other cations or anions, including acidic and basic compounds of biological importance.

Partition chromatography involves the distribution of solutes between a relatively fixed liquid phase (e.g., water bound to silica gel, starch or cellulose), and a moving liquid phase (e.g., water-saturated butanol). Rapid strides have been made in this field since Martin and Synge (1941) used a silica gel column for the separation of acetylated amino acids, and demonstrated a mathematical relationship between the rate of migration of a given solute and its partition coefficient between water and the developing solvent. This was later extended to paper chromatography by Consden, Gordon and Martin (1944) who modified a system of "capillary analysis" on paper strips described by Schönbein (1861), by using a developing solvent and by keeping the paper in a closed chamber where the atmosphere was saturated with the solvent vapor. This technique has been used extensively for the separation and identification of compounds of biological interest.

In our laboratories, paper chromatograms of urine from human subjects given p-amino salicylic acid (PAS) by mouth revealed the presence of N-acetylated-PAS and the glycine conjugate of PAS as metabolic products. Chromatograms of the glucuronide derivative of chloramphenicol following hydrolysis with β-glucuronidase resulted in the identification of free chloramphenicol and glucuronic acid as hydrolysis products. The technique of paper chromatography is especially useful for rapid qualitative surveys, following which the same solvent systems can be used for partition chromatography on powdered cellulose columns, and larger quantities of material can then be separated and identified.

The Levels of the Acids of the Tricarboxylic Acid Cycle in the Tissues of Normal and Diabetic Animals

CHARLES E. FROHMAN, JAMES M. ORTEN, and ARTHUR H. SMITH

Wayne University College of Medicine, Detroit

The method of Marshall et al (J. Biol. Chem., 179; 1127, 1949) for determining fumaric acid

by partition chromatography on silica gel has been expanded to include other acids of the tricarboxylic acid cycle. This was accomplished by placing the individual pure acids on the column and determining the fraction in which each acid left. The positions of the acids in the eluate were verified by studies of the ultra-violet spectrum of the eluate and by attempted isolations from the eluate. In the present investigation, the concentrations of fumarate, citrate, isocitrate, cisaconitate, lactate, alpha-keto-glutarate, oxalacetate, pyruvate, succinate, and malate were determined in the liver, brain, kidney, blood, and muscle of normal and experimental animals. No significant differences are found between the levels in normal rats fasted for twenty-four hours and in those fasted for seventy-two hours. However, drastic changes in the concentrations of the above acids are found in the tissues of rats made diabetic by an injection of alloxan. In these animals, the concentrations of all the above acids, with the exception of lactate and pyruvate, are decidedly lower. The effect of insulin on the levels of the above acids in the tissues of diabetic animals has also been determined. Insulin is found to reverse the above effect, increasing the levels of the organic acids toward those of the normal. The foregoing data indicate that in alloxan diabetes there may be a block in the breakdown of carbohydrates occurring between pyruvate and the tricarboxylic acid cycle.

Chromatography as Applied to the Study of the Intestinal Absorption of Amino Acids

Aline U. Orten, K. Koizumi, C. J. France and C. G. Johnston

Wayne University College of Medicine

The starch column chromatographic technique of Stein and Moore (J. Biol. Chem., 176:337, 1948; 178:53, 1949) has been found satisfactory for the separation and quantitative determination of 0.097 to 0.254 mg. quantities of each of fourteen amino acids present in known mixtures. The amino acids are leucine, isoleucine, phenylalanine, methionine, tyrosine, glutamic acid, threonine, aspartic acid, valine, alanine, serine, glycine, arginine and lysine.

The technique involves the use of a starch column with three different organic solvent systems passed through the column under pressure. The effluent is collected automatically in 0.5 ml. fractions and the fractions individually analyzed for the amino group content by the quantitative ninhydrin procedure of Moore and Stein (J. Biol. Chem., 176:367, 1948).

Permanent Thiry loops of ileum in dogs were prepared by the method of Johnston (Proc. Soc. Exper. Biol. & Med., 30:193, 1932). Water was placed in the loop and the loop contents withdrawn after a half-hour. Such samples were then prepared for chromatographic analysis in such a way that contaminants were removed and flat base-line chromatograms showing no peaks other than ammonia were obtained. These results indicate that intestinal loop contents, so prepared, does not contain contaminants which will interfere with the identification and determination of the fourteen amino acid peaks.

The identical known mixtures of amino acids previously chromatographed were then added to intestinal contents. These were separated and determined quantitatively in the same amounts and with the same degree of accuracy as they were determined from pure solution.

Rates of absorption of equi-molar solutions of amino acids from loops during half-hour periods have been determined on a few amino acids with the following results: DL-Phenylalanine $>$L-leucine $>$DL-isoleucine. Preliminary results indicate that DL-valine is absorbed at about the same rate as isoleucine and DL-threonine more slowly than either of these.

In mixtures, the absoption of phenylalanine is always depressed by the presence of leucine and/or isoleucine. The leucine-isoleucine relationship remains constant. The data also suggest that the total amount of amino acid absorbed in a given period of time is relatively constant whether amino acids are present singly or in mixtures.

Present Status of Steroid Chromatography in Clinical Research

William Q. Wolfson

University of Michigan Hospital

(By title only)

President's Message



Present Or Accounted For

After each name in the Roster Number we would like to write "thanks for your help and co-operation." Whenever called upon, you have been either present or accounted for. Many difficult assignments have been successfully completed. The cause of good health and citizenship has been advanced.

Many of you have singled out Mr. Hugh W. Brennaman, our public relations director, for special commendation. In this we heartily concur. He and his staff have worked day and night to preserve the high standards of health care that have always been paramount to the Michigan State Medical Society. We believe that our public relations department has rounded out a central office force, under the able direction of Mr. William J. Burns, our executive director, that is the envy of every other state in the Union.

In the years immediately ahead, we are going to need all the stamina and adroitness we can muster if the causes of freedom are going to be best served.

I know each of you will join with me and the other officers of the Michigan State Medical Society in saying: "Yes, now more than ever before, we will continue to be of help. We want to be present or accounted for."

C E Umphrey M D

President, Michigan State Medical Society

Editorial

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

HOSPITAL UTILIZATION

THE PROBLEM of increasing and excessive utilization of hospital beds is attracting more attention as the need continues to exceed the supply. The acknowledged shortage of hospital beds and the occurrence of abuses which amount to sabotage of our health resources prompted The Council of the Michigan State Medical Society to recognize this problem, resulting in the editorial in our March JOURNAL. The staff chief who was quoted at this time reports that his hospital noticed an improvement which lasted only a few weeks.

Another hospital, much larger, made a study of its January experiences, and the report has just been received. The hospital is not named, by request. A committee of five prominent members of the staff was appointed by the director. The committee reviewed 1,276 cases admitted during January, 1951. These cases were studied in regard to age, admitting diagnosis, length of stay in hospital prior to surgery, complications, findings at surgery, treatment while in the hospital, discharge diagnosis, and length of stay in the hospital. There were approximately 1,700 "inexcusably used" hospital days.

The committee reports the following facts:

On review of the private cases, the following facts were found:

1. Sixty patients took up 560 hospital days for diagnostic purposes only. The investigative studies on these cases could have been done either at the doctor's office or as out-patient cases. In addition to these, there were sixteen cases or 165 hospital days, that did not require hospitalization for any apparent reason.

2. Sixteen patients took 393 hospital days for x-ray therapy and physiotherapy only.

3. From the evidence on the charts, twenty-four patients took up 133 hospital days in unnecessarily long preoperative preparation.

4. In the same manner, twenty-four patients took up 167 hospital days in apparently unnecessarily long postoperative stay.

5. Twelve medical patients took up 155 apparently unnecessary days in prolonged care for the medical condition.

6. Nine orthopedic cases took up forty-seven hospital days while ambulatory and not apparently needing hospitalization.

7. Some cases were admitted under a false acute diagnosis in order to get the patient into the hospital for a checkup.

The above findings on private cases represents an apparent misuse of approximately 1,700 hospital days for one month, or approximately one-sixth of the capacity of the hospital.

Review of the staff and clinic cases indicated equally bad or worse conditions. One patient operated upon for a chronic appendix used fourteen preoperative hospital days. Four patients admitted only for diagnosis used forty-seven hospital days. The committee found that in eleven cases a total of ninety hospital days could have been saved.

Assigned reasons for long hospital stay have been that prepaid insurance was an influence. That may have been the case in some instances, but records of Michigan Hospital Service show only a fraction of a day difference between prepaid cases and uninsured cases. Such has been the experience for years.

Considering that about 50 per cent of patients in Detroit hospitals are under Blue Cross, and remembering the "inexcusable cases," one can readily understand the high costs of hospitalization.

Michigan Hospital Service paid for 850 needless days in one hospital in one month at an average of about $23.00 per day. In these particular cases, insurance paid the bill but every cent came out of premiums our patients have to pay. If not insured, they still have to pay and too much. These 1,700 useless days account for about one-sixth of hospital capacity.

All services rendered to patients must ultimately be paid for, and all add up to the increasing costs of "medical care." In final analysis, only a limited amount of money is available, and whatever of that is dissipated makes just so much less to be

applied on the doctor's own bill. As a banker recently remarked, "For a selfish motive, if for no other reason, doctors should conserve their patients' resources."

Because of high costs, rumors of insolvency of Blue Cross and Blue Shield seem to be spreading throughout the State. These are groundless, as we know, but they are disturbing. The plans are ready and willing to render all needed service, even a little on the generous side. If judiciously used, they can do an ever-increasingly better job. It's up to the doctor to hold down unnecessary hospitalization and to build up Blue Cross-Blue Shield—our greatest bulwark against political medicine.

Yes, it's up to us.

BALANCED ECONOMY

A RETIRED FARMER remarked the other day: "I am sixty-eight. When I was fifty-eight I thought I could retire. I had enough to live on comfortably. I invested seventy-five 100-cent dollars in Government bonds with the promise of one hundred dollars after ten years. What do I get? One hundred dollars, but they are sixty cent ones, and I am worse off than at the beginning. Now at sixty-eight I must go back to work."

Walter L.'s problems affect all of us. Just how shall we invest? Bonds are subject to the fluctuating value of the dollar. The greatest vender of bonds of all time has been the Federal government. Scarcely an hour passes but we hear on the radio: "Invest in Savings Bonds—the safest investment there is."

Government has recognized this difference in value of the dollar and periodically it publishes a "Cost of Living Index." This index is based upon the basic money value of the years 1935 to 1939. The latest index, just published, was 184.5, which means it takes that many dollars to buy what 100 would have bought. Our money has therefore depreciated by just that much.

Labor has been foresighted. Labor has used the cost of living index as basis for increased compensation. Pay rates go up and down a fixed amount per hour commensurate with the index rate. These "escalator clauses" have been accepted and in fact encouraged by Government. Labor is thus recognized, and provided for.

What of the widow and orphan or the retired person with a fixed income and no chance of increase? What of our schools and colleges, dependent on dividends and interest from invested bonds. They are now in trouble to keep going. How about any individual who has been able to save a little along during the years and has invested in Government or other bonds, only to see his returns inadequate because of the high cost of living, or the low purchasing power of the "dollar"?

Can these bonds be restored to the value they had at the time they were purchased. *Yes.* Government and others who issue bonds could materialize the economic facts they are now recognizing, and pay on the cost of living index rate. There would then be no loss, because the number of the paying unit now called a "dollar" would be increased in the same ratio as the cost of living index.

Government economists would object and say that would mean inflation and chaos, but government and industry are doing just that now in respect to labor payments. The claims for recognition by the fixed income groups, or those who have invested their money with anticipation of honest payment are just as reasonable. Government used the money it borrowed, presumably getting full value in the transaction. It owes the same return to its payees.

Is it right and just to pay "dishonest" dollars to the small bondholder, the widow or the dependent to avoid inflation, but to risk the same inflation without hesitation when paying the well-organized pressure groups? It seems we can remember when President Franklin D. Roosevelt vetoed the Veteran's Bonus bill because the two billion dollars called for "would bankrupt the nation.." The bill was passed over his veto, and with no bankruptcy. Could it not be possible that this act of readjustment and justice, and re-establishment of large groups of our people in the self-supporting class might turn the economic balance and benefit all of us. There might be inflation, and probably would be, but we would all be in it equally.

ON THE RUN

Carcinoma of the male breast represents only about 1 per cent of breast cancer and its prognosis is least favorable.

* * *

With the exception of fat necrosis, a tumor involving the skin, with adherence, is nearly always malignant.

* * *

It is unusual for uterine fibroids to produce bleeding in the post-menopausal woman.

Michigan State Medical Society

The 86th Annual Session

PANTLIND HOTEL-CIVIC AUDITORIUM

GRAND RAPIDS, MICHIGAN

September 26-27-28, 1951

Preliminary Program

WEDNESDAY MORNING

September 26, 1951

First Assembly

Black and Silver Ballroom, Civic Auditorium

A.M.

9:00 "Surgical Measures in the Management of Hypertensive Cardiovascular Disease"
REGINALD H. SMITHWICK, M.D., Boston, Mass.

9:30 "Peptic Ulcer—Complications and Treatment"
SARA M. JORDAN, M.D., Boston, Mass.

10:00 INTERMISSION TO VIEW EXHIBITS

11:00 "Prolonged Labor"
RALPH A. REIS, M.D., Chicago, Ill.

11:30 "Neurodermatitis (Atopic Eczema)"
STEPHEN ROTHMAN, M.D., Chicago, Ill.

12:00 End of First Assembly

INTERMISSION TO VIEW EXHIBITS

Program of Sections

WEDNESDAY NOON

September 26, 1951

12:45 to 1:30 p.m.

(No luncheon served)

1. DERMATOLOGY AND SYPHILOLOGY
"Studies on Systemic Disturbances in Recalcitrant Trichophyton Purpurem Infections"
STEPHEN ROTHMAN, M.D., Chicago, Ill.

2. UROLOGY
"Plastic Procedures for the Treatment of Hypospadias: A Survey of Sixteen Years' Experience"
AUSTIN I. DODSON, M.D., Richmond, Va.

3. GYNECOLOGY-OBSTETRICS
"Fetal Mortality from Breech Delivery"
ALBERT H. ALDRIDGE, M.D., New York, N. Y.

4. OTOLARYNGOLOGY
"The Medical Treatment of Ménière's Disease"
HENRY L. WILLIAMS, M.D., Rochester, Minn.

WEDNESDAY AFTERNOON

September 26, 1951

Second Assembly

P.M.

1:30 "Intestinal Obstruction in Infants and Children Due to Congenital Anomalies"
WILLIS J. POTTS, M.D., Chicago, Ill.

2:00 "The Indication for Surgery in the Treatment of Nephroptosis"
AUSTIN I. DODSON, M.D., Richmond, Va.

2:30 "Complete Abdominal Hysterectomy"
ALBERT H. ALDRIDGE, M.D., New York, N. Y.

3:00 INTERMISSION TO VIEW EXHIBITS

4:00 "Physiologic Phenomena Misinterpreted as Rhinologic Disease"
HENRY L. WILLIAMS, M.D., Rochester, Minn.

4:30 "Acute Conditions of the Abdomen"
CHARLES R. DOYLE, M.D., St. Louis, Mo.

5:00 End of Second Assembly

5:00 Discussion Conferences in Surgery, Medicine, General Practice, Dermatology and Syphilology, Pediatrics, Gynecology and Obstetrics, and Otolaryngology (See Page 756)

WEDNESDAY EVENING

September 26, 1951

GENERAL (PUBLIC) MEETING

Black and Silver Ballroom, Civic Auditorium

P.M.

8:30 to 10:00 Officers' Night

1. Induction of members of "Fifty-Year Club"
2. Presentation of Scrolls
3. Presidential Address
   By C. E. Umphrey, M.D., Detroit
4. Biddle Lecture

THURSDAY MORNING

September 27, 1951

Third Assembly

A.M.

9:00 "The Use of the Sex Hormones in Everyday Therapy"
Allan C. Barnes, M.D., Columbus, Ohio

9:30 "The General Preparation of the Patient for Eye Surgery"
Daniel B. Kirby, M.D., New York, N. Y.

10:00 INTERMISSION TO VIEW EXHIBITS

11:00 "Bronchial Asthma in Infants and Children"
Arthur J. Horesh, M.D., Cleveland, Ohio

11:30 "Pediatric Problems Arising from Atomic or Biological Warfare"
Franklin H. Top, M.D., Minneapolis, Minn.

12:00 End of Third Assembly

INTERMISSION TO VIEW EXHIBITS

——Program of Sections——

THURSDAY NOON

September 27, 1951

12:45 to 1:30 p.m.
(No luncheon served)

1. PEDIATRICS
   "Allergy in Pediatric Practice"
   Arthur J. Horesh, M.D., Cleveland, Ohio
2. SURGERY
   "Varicose Veins—Evaluation and Treatment"
   Charles R. Doyle, M.D., St. Louis, Mo.
3. OPHTHALMOLOGY
   "What's New in Cataract Surgery"
   Daniel B. Kirby, M.D., New York, N. Y.
4. PUBLIC HEALTH AND PREVENTIVE MEDICINE
   "Possible Deleterious Effects from Immunization Procedures in Children"
   Franklin H. Top, M.D., Minneapolis, Minn.
5. GASTROENTEROLOGY AND PROCTOLOGY
   "The Diagnosis and Treatment of Chronic Intestinal Amebiasis"
   Thomas T. Mackie, M.D., Winston-Salem, N. C.
6. ANESTHESIA
   "Pharmacology of Thiopental; Renal and Hepatic Function During Anesthesia and Operation."
   Emanuel M. Papper, M.D., New York, N. Y.

THURSDAY AFTERNOON

September 27, 1951

Fourth Assembly

P.M.

1:30 "Diabetic Coma—Physiology and Treatment"
Alexander Marble, M.D., Boston, Mass.

2:00 "The Diagnosis and Management of Chronic Internal Diseases"
Thomas T. Mackie, M.D., Winston-Salem, N. C.

2:30 "The Principles of Good Clinical Anesthesia"
Emanuel M. Papper, M.D., New York, N. Y.

3:00 INTERMISSION TO VIEW EXHIBITS

4:00 "Experimental Use of Various Drugs in Hypertensive Complications of Pregnancy"
N. S. Assali, M.D., Cincinnati, Ohio

4:30 "Surgical Infections of the Skin and Fascia"
Carl A. Moyer, M.D., Dallas, Texas

5:00 End of Fourth Assembly

5:00 Discussion Conferences on Gynecology and Obstetrics, Ophthalmology, Pediatrics, Public Health and Preventive Medicine, Medicine, Gastroenterology and Proctology, Anesthesia, and Surgery (See Page 756)

THURSDAY EVENING

September 27, 1951

STATE SOCIETY NIGHT

Ballroom, Pantlind Hotel

P.M.

10:30 An evening of entertainment for all registrants, their ladies and guests
Dancing and Floor Show
Host: Michigan State Medical Society
(Admission by card furnished to all registrants)

ONLY ONE MORE DAY TO VISIT YOUR MANY FRIENDS IN THE EXHIBIT

FRIDAY MORNING

September 28, 1951

Fifth Assembly

A.M.

9:00 "The Differentiation of Dyspnea Caused by Cardiac Disease from Dyspnea Associated with Pulmonary Emphysema"
RICHARD V. EBERT, M.D., Minneapolis, Minnesota

9:30 "The New Versus the Old in the Treatment of Syphilis"
S. WILLIAM BECKER, M.D., Chicago, Ill.

10:00 INTERMISSION TO VIEW EXHIBITS

11:00 "Vitamin Therapy in Clinical Practice"
ELMER L. SEVRINGHAUS, M.D., Nutley, N. J.

11:30 "The Neurosurgical Methods for the Relief of Pain"
JOHN MARTIN, M.D., Chicago, Ill.

12:00 End of Fifth Assembly

INTERMISSION TO VIEW EXHIBITS

Program of Sections

FRIDAY NOON

September 28, 1951

12:45 to 1:30 p.m.
(No luncheon served)

1. PATHOLOGY
"Type of Glioma of the Brain in Relationship to Prognosis"
JAMES W. KERNOHAN, M.D., Rochester, Minn.

2. MEDICINE
"Pulmonary Hypertension"
RICHARD V. EBERT, M.D., Minneapolis, Minn.

3. GENERAL PRACTICE
"The Use of Estrogens and Progesterone by the General Practitioner"
ELMER L. SEVRINGHAUS, M.D., Nutley, N. J.

4. NERVOUS AND MENTAL DISEASES
"Physiological Implications of Epilepsy"
THOMAS V. HOAGLAND, M.D., Detroit, Michigan

FRIDAY AFTERNOON

September 28, 1951

Sixth Assembly

P.M.

1:30 "Treatment of the Painful Hip"
WALTER P. BLOUNT, M.D., Milwaukee, Wis.

2:00 "Errors in the Therapy of Infectious Diseases in Infants and Children"
WALDO E. NELSON, M.D., Philadelphia, Pa.

2:30 "Peripheral Neuritis"
JAMES W. KERNOHAN, M.D., Rochester, Minn.

3:00 INTERMISSION TO VIEW EXHIBITS

3:30 "Mediastinal Lesions"
OSCAR T. CLAGETT, M.D., Rochester, Minnesota

4:00 "Recent Advances in Diagnosis of Heart Disease"
RAYMOND D. PRUITT, M.D., Rochester, Minn.

ASSEMBLIES END AT 4:30 P.M.

4:30 Discussion Conferences on Medicine, Dermatology and Syphilology, General Practice, Nervous and Mental Diseases, Surgery, and Pediatrics (See below)

Twenty-One Quiz Periods

WEDNESDAY, SEPTEMBER 26, 1951
5:00 to 6:00 p.m.

DERMATOLOGY AND SYPHILOLOGY: Stephen Rothman, M.D., Chicago
GENERAL PRACTICE: Ralph A. Reis, M.D., Chicago
MEDICINE: S. M. Jordan, M.D., Boston, Mass.
OBSTETRICS-GYNECOLOGY: A. H. Aldridge, M.D., New York City.
OTOLARYNGOLOGY: H. L. Williams, M.D., Rochester, Minn.
PEDIATRICS: W. J. Potts, M.D., Chicago
SURGERY: R. H. Smithwick, M.D., Boston and C. R. Doyle, M.D., St. Louis, Mo.

THURSDAY, SEPTEMBER 27, 1951
5:00 to 6:00 p.m.

ANESTHESIA: E. M. Papper, M.D., New York City
GASTROENTEROLOGY-PROCTOLOGY: T. T. Mackie, M.D., Winston-Salem, N. C.
MEDICINE: Alexander Marble, M.D., Boston
OBSTETRICS-GYNECOLOGY: A. C. Barnes, M.D., Columbus, Ohio and N. S. Assali, M.D., Cincinnati, Ohio
OPHTHALMOLOGY: D. B. Kirby, M.D., New York City
PEDIATRICS: A. J. Horesh, M.D., Cleveland, Ohio
PUBLIC HEALTH & PREVENTIVE MEDICINE: F. H. Top, M.D., Minneapolis
SURGERY: C. A. Moyer, M.D., Dallas, Texas

FRIDAY, SEPTEMBER 28, 1951
4:30 to 5:30 p.m.

DERMATOLOGY & SYPHILOLOGY: S. W. Becker, M.D., Chicago
GENERAL PRACTICE: E. L. Sevringhaus, M.D., Nutley, N. J.
MEDICINE: R. V. Ebert, M.D., Minneapolis, Minn. and R. D. Pruitt, M.D., Rochester, Minn.
NERVOUS & MENTAL DISEASES: T. V. Hoagland, M.D., Detroit
PEDIATRICS: W. E. Nelson, M.D., Philadelphia
SURGERY: W. P. Blount, M.D., Milwaukee, Wisconsin, and O. T. Clagett, M.D., Rochester, Minn.

WOMAN'S AUXILIARY

Grand Rapids, Michigan, Sept. 25-26-27, 1951

MONDAY, SEPTEMBER 24, 1951

A.M.

10:30 President's Report to the MSMS House of Delegates—Pantlind Ballroom
Mrs. Oscar Stryker

TUESDAY, SEPTEMBER 25, 1951

A.M.

9:30 Registration opens—Mezzanine, Pantlind Hotel

10:30 Finance Committee Meeting—President's Suite

P.M.

6:30 Past Presidents' and Secretaries' Club Dinner
Peninsular Club
Chairman, Mrs. Willis Dixon

6:30 Hospitality Room open to wives of all M.D.s
Parlors A and B, Mezzanine, Pantlind Hotel

8:00 Registration closes

WEDNESDAY, SEPTEMBER 26, 1951

A.M.

9:00 Registration opens—Mezzanine, Pantlind Hotel

9:00 Organization Breakfast for Retiring and New Directors with President-elect—Schubert Room, Pantlind Hotel

10:30 Pre-convention Board Meeting followed by General Session—Red Room, Civic Auditorium
(Compulsory for State Officers, Directors, State Chairmen, County President-elects and Delegates)
Presiding—Mrs. Oscar Stryker
Call to order
Invocation—Rev. John A. Dykstra, D.D.
Central Reformed Church
Pledge of Allegiance to the Flag
Leader—Mrs. Harry Weitz
The Woman's Auxiliary Pledge
Leader—Mrs. Maxwell Shadley
Minutes of the 24th Annual Meeting
Mrs. Martin Bruton, Secretary
Announcements—Mrs. Fred C. Brace,
Convention Chairman
Address of Welcome—Mrs. Harold Veldman, President of Woman's Auxiliary, Kent County
Response for the Convention—Mrs. William Mackersie, First Vice President Woman's Auxiliary, MSMS
Convention Rules of Order—Acceptance
In Memoriam—Mrs. C. C. Corkill
Reports of the Officers:
President-elect—Mrs. Robert Breakey
First Vice President—Mrs. William Mackersie
Second Vice President — Mrs. Walter Stinson
Recording Secretary—Mrs. Martin Bruton
Corresponding Secretary — Mrs. A. M. Crawford
Treasurer—Mrs. R. M. Leitch
Report of the Finance Committee—Mrs. Homer Stryker
Report of the Revisions Committee—Mrs. T. Grover Amos
President's Message—Mrs. Oscar Stryker
Reports of the County Presidents
Unfinished Business
New Business
Resolutions—Mrs. Donald Wright
Report of the Registrations and Credentials Committee—Mrs. John TenHave
Report of Committee on Nominations
Mrs. Donald Wright
Election of Officers

P.M.

12:30 Auxiliary Luncheon—Kent State Room

1:30 General Session—Red Room, Civic Auditorium

3:30 Business adjourned until 9:00 a.m. Thursday

6:00 Banquet—Kent State Room
Husbands cordially invited (Dress optional)
Presiding—Mrs. Oscar Stryker, President
Presentation of Convention Chairman — Mrs. Fred C. Brace
Introduction of Guests of Honor:
O. O. Beck, M.D., President-elect MSMS.
H. J. Hubble, M.D., Chairman, The Council
Arthur Rothman, M.D., Chairman, Advisory Committee of the MSMS to the Auxiliary
Address—Mrs. Harold Wahlquist, President, Woman's Auxiliary, American Medical Association

8:00 Registration closes

8:30 Michigan State Medical Society President's Night
Biddle Oration
Black and Silver Room, Civic Auditorium

THURSDAY, SEPTEMBER 27, 1951

A.M.

9:00 Registration opens—Mezzanine, Pantlind Hotel

9:00 General Session—Red Room, Civic Auditorium
Call to order
Roll Call
Announcements

12:00 noon Registration closes

P.M.

12:30 Annual Luncheon Honoring Past Presidents
Kent State Room
Presiding—Mrs. Oscar Stryker
Introductions—Robert S. Breakey, M.D., Official Representative, The Council of MSMS
Announcements
Speaker—Mr. Lee E. Brown, Assistant to General Manager of the American Medical Association
Installation of Officers—Mrs. J. Earle McIntyre
Presentation of gavel—Mrs. Oscar Stryker
Address—Mrs. Robert Breakey
Adjournment

3:00-3:30 Post-convention Board Meeting—Kent State Room
Presiding—Mrs. Robert Breakey
(Compulsory for all 1951-1952 State Officers, Directors, State Chairmen, County Presidents, County President-elects)

10:30 State Society Night—Dance and Floor Show
Pantlind Hotel

House of Delegates, 1951

REFERENCE COMMITTEES, CREDENTIALS COMMITTEE, AND PRESS RELATIONS COMMITTEE

(All meetings of Reference Committees will be held in the Pantlind Hotel, Grand Rapids.)

Credentials Committee

W. S. Stinson, M.D., *Chairman and Sergeant at Arms* ..... Bay City
J. M. Markley, M.D. ..... Pontiac
D. G. Pike, M.D. ..... Traverse City

* * *

Reference Committees

Officers Report
Room 322 (Furniture Capitol Suite)

E. H. Fenton, M.D., *Chairman* ..... Detroit
R. J. Armstrong, M.D. ..... Kalamazoo
S. T. Lowe, M.D. ..... Battle Creek
J. E. Manning, M.D. ..... Saginaw
C. L. Weston, M.D. ..... Owosso

Reports of The Council
Room 325 (West Michigan Room)

Arch Walls, M.D., *Chairman* ..... Detroit
B. T. Montgomery, M.D. ..... Sault Ste. Marie
Sydney Scher, M.D. ..... Mt. Clemens
D. W. Thorup, M.D. ..... Benton Harbor
J. D. Van Schoick, M.D. ..... Hanover
A. V. Wenger, M.D. ..... Grand Rapids

Reports of Standing Committees
Room 324 (Furniture Capitol Suite)

S. L. Loupee, M.D., *Chairman* ..... Dowagiac
J. F. Beer, M.D. ..... St. Clair
L. M. Bogart, M.D. ..... Flint
C. L. Candler, M.D. ..... Grosse Pointe Woods
William Westrate, M.D. ..... Holland
T. P. Wickliffe, M.D. ..... Calumet

Reports of Special Committees
Room 327

E. C. Texter, M.D., *Chairman* ..... Detroit
Douglas Donald, M.D. ..... Detroit
W. A. LeMire, M.D. ..... Escanaba
H. J. Meier, M.D. ..... Coldwater
E. S. Parmenter, M.D. ..... Alpena
N. W. Scholle, M.D. ..... Muskegon Heights

Constitution and By-Laws
Room 328

R. A. Springer, M.D., *Chairman* ..... Centerville
M. G. Becker, M.D. ..... Edmore
L. T. Henderson, M.D. ..... Detroit
W. B. Mitchell, M.D. ..... Grand Rapids
E. D. Spalding, M.D. ..... Detroit
R. W. Teed, M.D. ..... Ann Arbor

Resolutions
Room 323 (Directors Room)

B. M. Harris, M.D., *Chairman* ..... Ypsilanti
C. K. Hasley, M.D. ..... Detroit
O. J. Johnson, M.D. ..... Bay City
R. A. Johnson, M.D. ..... Detroit
J. W. Logie, M.D. ..... Grand Rapids
C. W. Oakes, M.D. ..... Harbor Beach
S. A. Stealy, M.D. ..... Grayling

Rules and Order of Business
Room 325

J. E. Livesay, M.D., *Chairman* ..... Flint
E. C. Hansen, M.D. ..... Manistee
C. I. Owen, M.D. ..... Detroit

Legislation and Public Relations
Room 327

E. A. Osius, M.D., *Chairman* ..... Detroit
L. W. Day, M.D. ..... Jonesville
H. C. Hansen, M.D. ..... Battle Creek
R. W. Shook, M.D. ..... Kalamazoo

Hygiene and Public Health
Room 322

O. K. Engelke, M.D., *Chairman* ..... Ann Arbor
R. V. Daugherty, M.D. ..... Cadillac
J. P. Markey, M.D. ..... Saginaw
J. G. Molner, M.D. ..... Detroit
W. R. Young, M.D. ..... Lawton

Medical Service and Pre-payment Insurance
Room 324

G. T. McKean, M.D., *Chairman* ..... Detroit
C. W. Colwell, M.D. ..... Flint
H. L. Gordon, M.D. ..... Midland
O. B. McGillicuddy, M.D. ..... Lansing
R. L. Novy, M.D. ..... Detroit
A. A. Van Solkema, M.D. ..... Grand Rapids

Miscellaneous Business
Room 327

R. V. Walker, M.D., *Chairman* ..... Detroit
J. P. Flanders, M.D. ..... Monroe
D. J. O'Brien, M.D. ..... Lapeer
F. W. Smith, M.D. ..... Ovid
W. F. Strong, M.D. ..... Ontonagon

Special Memberships
Room 222 (Grand Rapids Room)

M. A. Darling, M.D., *Chairman* ..... Detroit
H. C. Hill, M.D. ..... Howell
H. A. Miller, M.D. ..... Saline
G. C. Penberthy, M.D. ..... Detroit
D. R. Smith, M.D. ..... Iron Mountain

Emergency Medical Service
Room 222

J. R. Rodger, M.D., *Chairman* ..... Bellaire
K. B. Babcock, M.D. ..... Detroit
F. A. Weiser, M.D. ..... Detroit

Executive Session
Room 328

W. S. Reveno, M.D., *Chairman* ..... Detroit
L. C. Carpenter, M.D. ..... Grand Rapids
N. J. McCann, M.D. ..... Marquette
A. H. Price, M.D. ..... Detroit
H. W. Wiley, M.D. ..... Lansing

* * *

Press Relations Committee

Press Room, Parlor D, Pantlind Hotel

J. E. Livesay, M.D., *Chairman* ..... Flint
R. H. Baker, M.D. ..... Pontiac
William Bromme, M.D. ..... Detroit
H. F. Dibble, M.D. ..... Detroit
L. Fernald Foster, M.D. ..... Bay City

* * *

Stenographer's Office, Red Room, Pantlind Hotel.

Annual Reports

ANNUAL REPORT OF THE COUNCIL, 1950-51

The Council had three sessions of eight days and the Executive Committee of The Council convened eight times (to September 23, 1951), a total of eleven meetings up to the 1951 Annual Session of the Michigan State Medical Society. As in past years, all matters studied and recommendations made by The Council's thirty-two Committees as well as the Society's twenty-five Committees and all business of the Society were referred to The Council or its Executive Committee for consideration and action. The "all day" monthly sessions of the Executive Committee have resulted in the expeditious handling of the augmented business of the State Society —but the greatly increased volume of work may necessitate a two-day schedule of the Executive Committee every month in the not too distant future. A total of 131 hours, over sixteen working days of eight hours each—was spent by members of The Council and of the Executive Committee at the 1950-51 meetings, which total does not include the time spent going to and returning from the meetings, scheduled in various parts of the state.

Membership

Despite the inroads of the so-called "police action" in Korea, which siphoned off scores of doctors of medicine into military service, the membership of the Michigan State Medical Society is at a creditable high. Membership as of July 1 and as of December 31, from 1935 to 1951, are indicated in the following chart:

	1951	1950	1948	1945	1940	1935
July 1	4,647	4,881	4,645	4,425	4.401	3,410
December 31		5,114	4,960	4,686	4,527	3,653

The figures for 1951 include 4,390 Active Members, 111 Emeritus and Life Members, 7 Retired Members, and 113 Associate Members.

An Invitational Membership Campaign was conceived in October by the Michigan State Medical Society and was put into operation in March, 1951; this campaign was augmented by a brochure developed by the MSMS Public Relations Department. Progress results appear to be gratifying, but contacts, especially on the local level, must be maintained in order to achieve a maximum enrollment of every reputable doctor of medicine into the ranks of the county and State Medical Societies. To insure maximum membership, a perfect follow through on the Invitational Membership Campaign must be maintained by the county medical societies at this time and continuously.

Finances

As in the past, the first item of new business on the monthly agenda of The Council or its Executive Committee is "Study of Monthly Financial Reports." Every thirty days, therefore, the Society's financial picture is reviewed and governing policies established.

The Ernst & Ernst report for 1950 plus the budgets of the Society for 1951 were published in JMSMS, March number, beginning on page 314. Every year, members are invited to acquaint themselves with the financial status of their State Medical Society and to offer suggestions: these always are truly appreciated. As of June 26, 1951, 4,390 members paid Society dues amounting to $87,725.00. This was on the basis of $20.00 per member to the General Fund as established by The Council in January, 1951. An equal amount accrued to the Public Education Account for current activities, and $8,772.50 was set aside in a Building Fund as well as $6,579.37 in a contingent surplus fund.

The Public Education Reserve program (CAP—Special Committee on Education) which was in operation during 1949 and 1950 was dissolved at the end of 1950 and these activities are now being continued as a part of the current Public Education program.

A brief financial resume of each of the MSMS activities as of June 26, 1951, is herewith presented:

	On Hand 1/1/51	Income to 6/27/51	Expenses to 6/27/51	Balance on Hand 6/27/51
General Fund	$ 58,268.41	$103,534.72*	$ 38,403.22	$123,399.91
Annual Session (1951)		22,980.00	2,388.54	20,591.46
P.G. Institute (1951)		11,510.00	8,466.92	3,043.08
The Journal		31,454.82	25,107.22	6,347.60
Public Education	59,600.98	89.513.50	46,532.75	102,581.73
Rheumatic Fever	23,467.55	15,223.15	10.670.23	28,020.47
Totals	$141,336.94	$274,216.19	$131,568.88	$283,984.25

* Includes allocation to Building Fund and to surplus.

The AMA dues collected by county medical societies and forwarded to the American Medical Association during the six months to June 26, 1951, totaled $105.972.50. A resume of the financial condition of the Michigan State Medical Society as of August 31, 1951, will be presented to the House of Delegates at its opening session of September 24, 1951—as part of The Council's Supplemental Report.

The Journal

The Journal of the Michigan State Medical Society is now completing its fiftieth year of service. It was established in the early years of this century as a better medium of communication between the members of the Society and its officers; also as a much better method of distribution monthly to our members those papers read at the annual session and other meetings rather than just once a year.

The quality of scientific presentation has been uniformly good but we have endeavored to improve it with the years until our book now ranks with the very best of the State journals. It has been used as a means of informing our members of economic and sociologic problems. We have endeavored to make it carry to the members the considered opinions of organized medicine and to have it act as a living postgraduate training. Always The Journal has defended the theory of private practice of medicine and has opposed bureaucratic or political dominance.

It publishes approximately 1,600 pages each year. For several years each number has been devoted to some particular activity of the profession or the State Society, and the cover page has been designed with a special reference as that specific number.

This present year has continued the same policy. In May of this year, we saluted Michigan's Foremost Family Physician, Lunette I. Powers, M.D., of Muskegon. In the same number we complimented the American Medical Association. We have received several letters of commendation on these two articles.

It is our plan to continue devoting each number of The Journal to some medical or Society activity and to indicate this activity with specially designed cover pages.

Some of our members have expressed their desire for more scientific editorials, but the Publication Committee and The Council felt we could render the best service to our membership by continuing the fight against National Socialism at every opportunity, and we propose to continue this policy. Any individual or special committee which wishes to publish a scientific editorial is invited to submit it. We have published a few such editorials written by invitation.

In going over the list of Michigan Firsts, it is gratifying to recognize the number which were first expounded in THE JOURNAL and after a few repetitions have been accepted by the profession and made a part of our Society activities.

The editorial staff expresses thanks to The Council and to the Publication Committee and to the many members who have not only helped with very useful suggestions but have been kind enough to express appreciation at what has been done.

Organization

1. The County Secretaries-Public Relations Conference of January 21, 1951, in Detroit was a springboard which catapulted the Michigan CAP Program into intense state legislative activity. For report on the Michigan Legislative Session of 1951, see Legislative Committee's Annual Report.

2. The past year saw a continuation of the successful press conferences in various Councilor Districts, the most recent being in Marquette on June 22. These friendly meetings with newspaper editors, radio executives, and their family physicians, resulted in mutual understanding and greater co-operation.

3. The Fifth Michigan Postgraduate Clinical Institute was held in Detroit, March 14-15-16, 1951, with a registration of 1,579. Thousands of lines of excellent publicity in Michigan newspapers indicated the public's interest in the deliberations of this scientific graduate meeting and in medicine generally.

4. Joint meetings of Michigan's Delegates to the American Medical Association with the Executive Committee of The Council (held just before the June and December Sessions of the AMA) were continued during the past year. The viewpoint of Michigan's medical profession is expressed to the parent organization at its semi-annual sessions as a direct result of these semi-annual meetings.

Ralph A. Johnson, M.D., Detroit, was elected as the sixth AMA Delegate from Michigan by The Council at its Annual Session last January.

5. G. B. Saltonstall, M.D., Charlevoix, was appointed Councilor of the Ninth District on January 20, 1951, to serve the unexpired term of E. A. Oakes, M.D., Manistee, resigned.

6. The selection of Michigan's Foremost Family Physician was definitely organized by The Council during the past year, so that the choice will be made in future by the MSMS House of Delegates at its Annual Session.

7. The Woman's Auxiliary to the Michigan State Medical Society celebrates its Silver Anniversary in 1951. The April and August numbers of JMSMS featured this milestone in the Woman's Auxiliary history; further to commemorate the event, a silver gavel and a scroll will be presented to our ancillary organization at its September, 1951, convention.

8. Organization among the fifty-five component societies continues to be satisfactory. Commendation is again given to certain of the county societies (Calhoun, Genesee, Grand Traverse-Leelanau-Benzie, Ingham, Jackson, St. Clair, Upper Peninsula Medical Society, and Wayne) on their high quality annual scientific postgraduate "clinic days." A continuation of these fine training programs is recommended.

Public Relations

Powerful blows have been struck against socialized medicine. But even though socialized medicine is down, it is not out. As in the past, the Michigan medical profession's leadership in public relations continued during the past year to blaze the trail in the fight against the advocates of a compulsory health plan.

In addition to an expanded public relations program for 1951, the beginnings made in the previous year of civic action and community leadership under the CAP plan were augmented. The "Good Citizenship Campaign" was born of necessity for participation by Doctors of Medicine in political life when ominous social influences threatened the health and welfare of the nation.

These were the Public Relations highlights of 1951:

"Good Citizenship Campaign."—Basically, this plan followed an American heritage—the right to vote. The "Good Citizenship Campaign," organized in Lansing on May 7, 1950, merely stimulated this freedom by urging maximum registration and voting.

Following were the results of the campaign which ended with the fall election:

(a) Registration and voting: 97.4 per cent of Michigan's Doctors of Medicine registered; 97.3 per cent of the doctors' wives; and 90.4 per cent of their medical assistants went to the polls. This was an increase of nearly 100 per cent over previous registration.

(b) An overwhelming vote in the primary election indicated the success of the "Good Citizenship Campaign," thanks to the outstanding efforts of Michigan Doctors of Medicine and their wives. All major professional and trade organizations in Michigan were urged to develop a "Good Citizenship Campaign," through efforts of MSMS representatives. The large vote was totally unexpected by those who did not know of the organization.

The Michigan State Medical Society Woman's Auxiliary lent splendid assistance to the "Good Citizenship Campaign." Telephone campaigns launched by Woman's Auxiliaries of such counties as Wayne and Kalamazoo very materially aided in getting out the vote.

The "Good Citizenship Campaign" will be continued on a permanent basis as part of the Public Relations Program of MSMS.

General Public Relations.—Newspapers: The Michigan State Medical Society co-operated with the American Medical Association in the advertising campaign against socialized medicine. The advertisements were placed in Michigan newspapers and programs and announcements were presented on Michigan radio stations.

Excellent local, state and national publicity resulted from the designation of Lunette I. Powers, M.D., as Michigaan's Foremost Family Physician.

An Upper Peninsula press-radio conference was held by MSMS in Marquette on June 23, 1951, as a testimonial to the understanding existing between the medical profession and members of the press and radio in that area.

Many series of articles on the topic of supply of doctors and their services as individuals and in medical organizations were published.

Feature material and news releases were sent out to Michigan daily and weekly newspapers. A splendid return of clippings indicates the co-operation of the editors of these newspapers in publishing these articles.

Special publicity campaigns were conducted for the MSMS Annual Session in September, 1950, and the Michigan Postgraduate Clinical Institute in March, 1951. Last year's Annual Session publicity amounted to 1,469 column inches of space. Fourteen talks were presented over radio, television and before luncheon clubs as well in Detroit. Comparable activity was carried on in connection with the Michigan Postgraduate Clinical Institute and the Industrial Health Day, April 4, 1951.

Television.—MSMS entered television for the first time in 1951. Two successful shows are produced each week on Detroit television stations:

"It's Your Life," a half-hour program aired each Sunday noon on WJBK-TV was started December 17, 1950, sponsored by MSMS and the Medical Arts Pharmacy of Detroit. Each week Michigan Doctors of Medicine appear on the show and discuss a variety of topics,

always emphasizing the organizational work being done to render greater service.

The second show, "Your Medical Mail Box," began June 27, 1951, on WXYZ-TV. This is a half-hour show and is produced each Wednesday in conjunction with the Bud Lanker program.

A heavy response of letters from both productions point to their popularity.

Radio.—Twenty-six radio stations in Michigan now carry the "Tell Me Doctor" program. The series is also used by Florida, North Carolina and Oklahoma and New Mexico is currently interested in obtaining the series. As it nears its 1,500th consecutive broadcast, the show remains the only daily medical program in America.

MSMS plans to conduct four broadcasts each year on a major Detroit radio station to present the medical viewpoint on important topics of public interest.

Cinema.—"To Your Health" has been shown in 258 Michigan theaters. "Lucky Junior" has been screened in 295 theaters.

A color film "To Save Your Life" is now in production which will answer antimedical propaganda. The film shows the education, expense and sacrifice necessary to become a Doctor of Medicine. It will be used on television and in the secondary schools of Michigan.

Publications.—Newsweek of September 18, 1950, complimented the Michigan State Medical Society on its public relations work.

Paul de Kruif, science writer, plans to write an article for *Reader's Digest* on the top-notch co-ordination between practicing doctors of medicine and health men of Michigan.

Oliver W. Lohr, M.D., Saginaw, Michigan, was the subject of a *Saturday Evening Post* article on pathology.

The Medical Associates booklet has been listed for distribution by the Chronicle Press of Moravia, N. Y. Requests have been received from every state in the union as well as from some foreign countries. Schools, colleges and hospitals throughout the state have been using this MSMS pamphlet generously.

A series of articles has been written in JMSMS on public relations. A second series is now being prepared on the "Michigan Firsts."

Exhibits.—An exhibit is being developed by MSMS for display at the Michigan State Fair next autumn.

The MSMS exhibit and motion picture was one of the innovations of the Michigan Rural Health Conference on October 20-21, 1950.

Help has been given to county medical societies to display exhibits at county fairs.

The total monetary value of the Public Relations Program from September, 1950, to September, 1951, if figured at commercial rates, has been conservatively estimated at nearly one million dollars.

Appointments.—In April, 1951, John B. Kantner was appointed Associate Public Relations Counsel to fill the vacancy created by the resignation of Russell F. Staudacher, who has been employed by the AMA.

Hugh W. Brenneman, Public Relations Counsel, was appointed to a two-year term on the Advisory Board of the AMA Public Relations Department by the AMA Board of Trustees.

Organizational.—MSMS assisted other health organizations and associations in setting up plans, services and surveys. The following are highlights of this organizational activity:

(a) MSMS jointly sponsored, with the AMA Council on Medical Service, the National Conference on M. D. Participation in Health Councils. This conference was held in Detroit October 1, 1950, to find ways and means for gaining greater participation by Doctors of Medicine in Health Councils throughout the country.

(b) The annual report of the Michigan Heart Association credited MSMS with founding the organization. During the year the MHA produced a pamphlet entitled, "Your Heart and the Michigan Heart Association" in addition to a motion picture called "Heart to Heart." The Association has become the leading member of the United Health and Welfare Fund.

(c) Many resolutions were adopted by Michigan organizations against Compulsory Health Insurance, an outstanding example being that of the State Bar of Michigan at its September, 1950, Annual Meeting.

(d) The Michigan Directory of Health Services, prepared by the Michigan Health Council, was presented for the first time at the Michigan Rural Health Conference in October, 1950. This contained a series of pages concerning the Michigan State Medical Society, the county medical societies and the various medical society committees.

(e) The Michigan Health Survey was completed and the information put to good use in connection with legislative activity.

(f) The Health Information Foundation will develop a survey in Michigan through Michigan State College. The Foundation has sought the advice of the Michigan State Medical Society and the Michigan Health Council.

(g) In February, 1951, L. Fernald Foster, M.D., and Hugh W. Brenneman appeared before the National Emergency Medical Service Committee in Chicago to present the plan originated by John R. Rodger, M.D., Bellaire, to use school buses for transporting injured during civil defense emergencies—an idea which has been nationally accepted.

(h) The Directory of the United Health and Welfare Fund agencies was distributed to county medical societies.

(i) A survey of industrial medical care facilities was completed in Michigan by the Brookings Institution with the co-operation of the MSMS through the Michigan Health Council.

Educational.—Much work has been done in the public schools by MSMS representatives in a series of presentations to students on the subject of medical service and medical economics.

Conclusion.—While a good proportion of PR personnel time was involved in state legislative activity, the basic PR program has not been neglected as is indicated by the report above.

However, both our public relations activity and the legislative work have revealed the necessity for a concerted prolonged effort to develop a high degree of ethical conduct and individual responsibility on the part of both the citizenry and the government if the ideals of the American Way of Life are to prevail, and they must prevail if Medicine is to maintain its freedom.

Contacts with Governmental Agencies

Scores of contacts with federal and state governmental agencies continues to be an important activity of the Michigan State Medical Society. Chief among these contacts in 1951 were:

1. Michigan Day in Washington, D. C. Following the instruction of the 1950 House of Delegates, The Council again dispatched MSMS representatives to Washington, D. C., last May. Much good-will always results from these personal contacts.

A recommendation on this subject follows.

2. Michigan State Board of Registration in Medicine. A joint committee, representative of this Board and of MSMS, created to study proposed changes in the Medical Practice Act, was active during the past year; its suggested amendments may be presented to the Michigan Legislature in 1952.

3. Michigan Department of Health. The Michigan Health Commissioner attended practically all meetings of The Council and of its Executive Committee during the past year, with the result that mutual problems were solved through early discussion and fine understanding. Important matters presented during the past year included reporting of communicable diseases, phraseology of the new birth certificates, blood typing program, child and maternal health, tuberculosis control, and report on reorganization of state government.

State Health Commissioner A. E. Heustis, M.D., has proved to be a catalyst, binding all in a united effort toward constantly improving public health in Michigan.

4. Department of Public Instruction. The three MSMS Advisory Committees continue to serve the Superintendent of Public Instruction in the work of evaluation of curricula of schools for training of medical aides, diagnostic service for mentally handicapped children, and for G.I. training purposes.

5. University of Michigan. Definite co-operation in two important items marked this past year: (a) an effort to increase the number of medical graduates; and (b) continuation of the medical-socio-economic lectures for seniors. The continuation of the Liaison Committee with the University of Michigan President is recommended.

6. Wayne University College of Medicine. This medical school also co-operated closely with the Michigan State Medical Society in (a) attempts to increase the number of medical graduates and (b) the continuation of the medical-socio-economic lectures for seniors.

MSMS gave generous help and effort to gain additional funds from the 1951 Legislature for a medical science building at Wayne University, which successful effort will aid to increase the number of admissions to this medical school in Detroit (see report of Legislative Committee).

7. Michigan Social Welfare Commission. This agency requested the appointment of an MSMS representative to its advisory committee on medical and health matters. This request was complied with. Representatives of the Commission appeared in person at the Annual Session of The Council to present a plan of postpayment for medical care of recipients in certain categories, which program was approved by MSMS.

8. The Michigan Crippled Children Commission and its Medical Director Carleton Dean, M.D., continued with fine co-operation in 1951. The difficult administrative problems facing the Commission result from the inelastic Acts covering afflicted and crippled children in this State, laws that have been spelled out in such detail that they leave little latitude to the Commission in their administration.

Praiseworthy is the Michigan Crippled Children Commission's helpful work in the Michigan Rheumatic Fever Control Program; the Commission assumes responsibility for rheumatic fever cases in the indigent classification.

9. Contacts with Governor's office. Primary contact was in connection with report to the Governor on increase in number of medical graduates (the Governor's Committee was composed of MSMS Secretary L. Fernald Foster, M.D., Dean A. C. Furstenberg, M.D., and Dean G. H. Scott, Ph.D.); also, in connection with appointments to state boards and commissions dealing with medical and health care.

In May, 1951, the Governor disappointed many friends in the health and medical fields by appointing an osteopath to the Michigan Crippled Children Commission, which appointment was rejected by the State Senate Committee on Business and Rules. (On July 11, the Governor reappointed the same osteopath to the MCCC!)

10. Michigan Civil Service Commission. MSMS completed its survey of medical service in the Michigan State Veterans Facility at Grand Rapids, an assignment requested by the Civil Service Commission last year.

11. Michigan's Attorney General. Several opinions concerning hospital standards and staff memberships (such as at Grandview Hospital in Ironwood) were issued by Attorney General F. G. Millard shortly after his assumption of office. An opinion directly contrary to that of the Attorney General was rendered by the famous constitutional authority, Dean E. Blythe Stason of Ann Arbor, which opinion was presented to the Attorney General by the Michigan State Medical Society, for appropriate action. As of this writing, the Attorney General's staff is still studying the Stason opinion, so no action can be reported.

12. Procurement and Assignment. This federal activity was begun during the past year, with the follow through being delegated to a special MSMS Committee headed by C. I. Owen, M.D., Detroit, aided by Grover C. Penberthy, M.D., Detroit, Chairman of Michigan Volunteer Advisory Committee, Selective Service System. (See report of Medical Procurement Advisory Committee.)

13. National Emergency Medical Service. Civil defense on a statewide basis was continued during the past year with several mock bombing exercises in the Sault Ste. Marie and Detroit regions. The medical men in these two areas were officially commended for fine co-operation and active support of the exercises.

14. White House Conference on Children and Youth. MSMS representatives were dispatched to cover this Conference and also to assure responsibility for proper follow-through of the medical proposals by the medical profession of Michigan (through active participation in the Conference of Children and Youth in Michigan).

15. "Little Hoover Commission." A staff report to the Michigan Joint Legislative Committee on Reorganization of State Government entitled "Michigan's Health Agencies" (No. 8) recommended that a strong over-all central Office of Health Affairs be established as an executive agency controlling the Department of Health, Hospital Survey and Construction Program, Crippled Children Commission, State Tuberculosis Hospitals, State Mental Health Program (including all State Mental Hospitals) and several other important functions. This tremendous power would be placed in the hands of a State Council of Health consisting of seven persons, to contain not more than three *physicians*. "No single business or professional group shall constitute a majority of this Council." This phraseology might permit the health affairs of the State to be placed under the control of three osteopaths and four representatives of labor.

A recommendation on this subject follows.

16. EMIC Program. The 1951 reincarnation of this unsatisfactory World War II experiment was the subject of discussions by The Council and its Executive Committee at four of its recent meetings. A bill with indemnification features has been introduced into Congress; however, the American Medical Association feels no widespread emergency exists at the present time which warrants setting up a special maternal and infant care program for wives and dependents of servicemen. Progress of this movement will continue to be watched and reported.

Contacts with Voluntary Agencies and Organizations

1. Michigan Medical Service. During the MSMS Secretaries' Conference of January 21, an achievement award was presented by the President of the Blue Shield Medical Care Plan to Michigan Medical Service in recognition of outstanding service by MMS as the first Blue Shield plan to enroll two million participants.

The $5.000 family income certificate, subscription rate, etc., of Michigan Medical Service were approved by the Michigan Insurance Department during the past year and are being offered to those groups desiring it.

A meeting with representatives of the Michigan Social Welfare Commission was held by MMS-MHS to study coverage for indigents on an arrangement similar to the Veterans Home Care Program or on an insurance basis. A progress report on this subject will be submitted at the Annual Meeting of Members of Michigan Medical Service; MMS President R. L. Novy, M.D., urges all Delegates to be present at this session scheduled for Tuesday,

September 25, at 2:00 p.m., Ballroom, Pantlind Hotel, Grand Rapids.

MSMS recommended local public relations meetings to MHS-MMS; it also approved the designation of September, 1951, as "Blue Cross-Blue Shield Month" to inaugurate statewide community enrollment on an individual basis.

2. Michigan Hospital Service. Overutilization of hospital service was thoroughly discussed by The Council at its Annual Meeting in January, 1951. Appropriate warnings were sent to the membership and to hospital superintendents. Our bulwark against socialized medicine (Blue Cross-Blue Shield) will crash unless participating physicians use caution in the unnecessary utilization of hospital and medical service for MHS-MMS subscribers.

3. Michigan Heart Association. In three short years, this organization has assumed high standing in Michigan's medical and health circles, thanks to the fine leadership of W. B. Cooksey, M.D., Detroit, P. S. Barker, M.D., Ann Arbor, Douglas Donald, M.D., Detroit, the first three presidents of the Association.

MSMS is grateful to the Michigan Heart Association for its continued generous grants toward the maintenance of the pioneering Michigan Rheumatic Fever Control Program. It also expresses thanks for contributions to this same life-saving activity received from the Michigan Society for Crippled Children and Adults, Inc., and as well as for co-operative work, among indigents, by the Michigan Crippled Children Commission, previously mentioned.

4. Michigan Health Council. Thirty-four community health councils have been organized throughout Michigan, through the efforts of the MHC under the vigorous leadership of President J. S. DeTar, M.D., Milan, and Secretary E. H. Wiard, Lansing.

The Michigan Health Council is now composed of twenty-one health organizations. During the past year it published a very important Directory of Health Organizations in Michigan, a source manual of value to both health agencies and individual medical practitioners.

MSMS co-operated again with the MHC and with the Michigan Foundation for Medical and Health Education, Inc., in the sponsorship of the annual and very successful Michigan Rural Health Conference, held on the campus of Michigan State College, East Lansing, October 20-21, 1950.

5. American Medical Association. During the past year, MSMS and its officers as well as county medical society officials, have co-operated to the fullest extent in the various projects of the AMA, all of which have been and are to the best interests of health and medicine in this and all states. The MSMS Council expresses appreciation to the AMA for the excellent work it is doing in behalf of the people of this country, especially in bringing forward a public awareness of the advantages and benefits of the voluntary way of medical service.

6. American College of Surgeons. The hospital standardization program of the American College of Surgeons occupied discussion time at every one of the meetings of The Council and of its Executive Committee during the past year. The end result was the drafting of the so-called "Michigan Resolution" which was introduced into the AMA House of Delegates in June, 1951, at Atlantic City, urging that the hospital standardization program be assumed exclusively by the AMA. A summation on the outcome of this resolution will be included in the Report of Delegates to the AMA.

7. Other voluntary groups contacted during the past year include the Michigan Epileptic Clinic, Inc.; the Michigan Diabetes Association; the Arthritis and Rheumatism Foundation, Michigan Chapter; the United Health and Welfare Fund; the State Bar of Michigan; the Michigan Public Health Association; the Michigan Health Officers Association; the Michigan Nursing Center Association; the Michigan Manufacturers Association; the Michigan Tuberculosis Association; the Michigan Insurance Underwriters Association; the American Medical Education Foundation.

Committees

A total of seventy-six meetings of Committees of the Michigan State Medical Society and of The Council were held during the ten months' period ending July 31, 1951. As stated in the past, the progressive accomplishments attained by your State Society are the result of constant work by these active groups—portrayed in the enlightening and informative annual reports of committees.

True gratitude is expressed to the chairmen and members of all committees for their contribution of invaluable time and sincere effort, given in behalf of all medical practitioners of Michigan.

Especially active during the past twelve months were:

1. The Public Relations Committee and the Special Committee on Education; these two Committees spearheaded the medical profession's program for voluntary health insurance and for the preservation of the American way of life based on the private enterprise system. Co-operating with The Council and its Executive Committee, these two hard-working groups scrutinized carefully—every month—the plans and expenditures of the PR Department (see Annual Reports of these two Committees).

The Council recommends that the Special Committee on Education, a Committee of The Council, be continued for the ensuing year, to aid the more populous Public Relations Committee in its work.

2. The scientific committees especially active in 1951 were: Committee on Rheumatic Fever Control, Maternal Health Committee, Mental Hygiene Committee, Cancer Control Committee, Venereal Disease Control Committee, Tuberculosis Control Committee, Child Welfare Committee, Geriatrics Committee, Iodized Salt Committee, Infectious Diarrhea Committee, the Committee on Atomic and Allied Procedures, and the Industrial Health Committee.

3. The Committee on Postgraduate Medical Education continues to sponsor excellent intramural and extramural courses, the latter bringing modern medicine to the very door of the practitioners of this state. The Committee's latest endeavor is one of co-operation and coordination with the postgraduate program of the Medical Society of the State of Wisconsin, in behalf of physicians in the border cities, a most worthy and timely endeavor.

4. A new committee appointed during the past year was the Committee of Ophthalmologists (advisory to the Michigan Department of Health).

5. A statement of policy re MSMS committee actions and publicity was adopted during the past year as follows:

"That the Secretary be instructed to write the Chairman of each Michigan State Medical Society Committee and the Chairman of each Council or Special Committee reiterating The Council policy that:

"1. All committee minutes must be approved by The Council or its Executive Committee before the actions of said committee become the policy of the Michigan State Medical Society;

"2. That publicity on all discussions, decisions and actions by committees and committeemen must be deferred until the minutes have been approved by The Council or by its Executive Committee, and that such publicity must be released only by The Council or its Executive Committee, through the Public Relations Department of MSMS;

"3. That when it is necessary to supplement committees' minutes with oral reports, the Chairman may send official representatives to attend sessions of The Council or its Executive Committee.

"And further, that the Secretary be instructed to notify each committee chairman to transmit this information to each committeeman individually and to emphasize this policy in committee meeting."

Society Home

New building for MSMS. In June, 1951, final negotiations were completed for purchase of choice property

at 606 Townsend Avenue, Lansing, to house the executive offices of the MSMS. This building, as indicated previously under "Finances," will adequately house the employes of the MSMS who for years have experienced crowded conditions with resulting loss of efficiency. In the new MSMS "home" the employes will be able to administer the ever-increasing organizational detail with the same energy and enthusiasm as in the past, but in more comfort and with greater satisfaction and dispatch.

Matters Referred to The Council by 1950 House of Delegates

1. Bargaining of medical services. This problem, which occupied the attention of the 1950 House of Delegates, was adjudicated through the co-operation of the Michigan Manufacturers Association which published a statement in its Bulletin 1745 of December 14, 1950, to all Michigan manufacturers setting forth the opinion that medical services belong to the medical man. The Bulletin stated in part: "In negotiating surgical and medical plans with unions, it is suggested that employers do not agree to any clause which attempts to regulate fees charged by doctors for private medical services . . . Members (of the Michigan Manufacturers Association) should not heedlessly enter into an agreement which may result in embarrassment and difficulties."

2. Committee of Seven to Study Basic Science Law. This Committee was appointed in October, 1950, and submits a report to the House of Delegates.

3. Study of nursing needs. This matter was referred by The Council to the Permanent Conference Committee for recommendations.

4. Development of simplified insurance reporting form. This was referred to a special committee which, after study of actions taken by national and state medical organizations, developed the following resolution for introduction into the AMA House of Delegates in June, 1951:

WHEREAS, In many cases insurance reporting forms of commercial insurance companies are unduly long, require excessive duplication and thus make completion of these forms unnecessarily time consuming; and

WHEREAS, difficulty lies in obtaining co-operation towards shortening these forms by any state medical society due to the national character of the insurance companies; and

WHEREAS, for any state to adopt a uniform reporting form would be unsatisfactory to insurance companies; and

WHEREAS, this problem is not unique to Michigan doctors but is common to all members of the medical profession; therefore be it

RESOLVED, That the Delegates of the Michigan State Medical Society to the American Medical Association be instructed to introduce a resolution requesting the American Medical Association to consider this problem and in collaboration with insurance companies of America to develop mutually satisfactory reporting forms of a more efficient and shortened variety.

The AMA House of Delegates approved this Michigan resolution and invited attention to the fact that certain simplified forms already have been approved by the AMA Council on Medical Service and instructed that copies be supplied to each state medical society.

5. Change in the coroner system. Pursuant to instructions, The Council had a medical examiner bill drafted and introduced into the 1951 Michigan Legislature. The pressure of vested interests against this bill was such that it was not passed by the Legislature. More intensive and sustained educational activity will be necessary before this progressive legislative proposal becomes law. Such educational work should be assumed by a disinterested group, and it is gratifying to note that a recommendation has been made to the State Bar of Michigan by its Medical Jurisprudence Committee that the Bar assume this responsibility. The "Little Hoover Commission" heartily endorses the medical examiner system.

6. Proposed amendment to Chapter 5, Section 5, of MSMS By-Laws. At the 1950 House of Delegates session, an amendment was offered to eliminate the word "consecutive" in Chapter 5, Section 7 (re Life Members). The Reference Committee approved this proposed amendment but also recommended that the same word be omitted from Chapter 5, Section 5 of the By-Laws (re Emeritus Members).

Inasmuch as the MSMS By-Laws in Chapter 8, Section 10-m states that each resolution introduced into the House of Delegates shall be presented in triplicate and referred to the Reference Committee *before action thereon is taken*, The Council feels that the proposed amendment to Chapter 5, Section 5 (which had never been introduced into the House of Delegates, as per the By-Laws provision) might be considered unconstitutional in subsequent years by some parliamentarians.

A recommendation on this subject follows.

7. Changes in Councilor Districts. The recommendation of the 1950 House of Delegates that Clinton County be transferred from Councilor District 6 to District 2 and that Kalkaska County be transferred from Councilor District 9 to District 10 was referred to the county medical societies in these four Districts for approval, in accordance with your instructions.

We respectfully report that replies were received from Hillsdale, Ingham and Jackson Counties (but not from Eaton County) in the Second District, with all three approving; a reply was received from Genesee County (but not from Clinton and Shiawassee) in the Sixth District; Genesee County approved.

No county society in the Ninth District replied.

Bay-Arenac-Iosco, North Central Counties and Alpena-Alcona-Presque Isle County replied in the Tenth District. These three societies objected and stated they desire that Kalkaska be retained in the jurisdiction of the North Central County Medical Society.

To sum up, there is no objection on record against transferring Clinton County from the Sixth District to the Second District; but there are three objections to transferring Kalkaska County from District 9 to District 10.

Recommendations

The Council respectfully recommends:

1. That MSMS representatives be instructed to continue their yearly visit to Washington, D. C., on the occasion of Michigan Day sponsored by the United States Chamber of Commerce.

2. That the unwise concentration of power in the health field, as recommended in Staff Report No. 8 ("Michigan Health Agencies") to the Michigan Joint Legislative Committee on Reorganization of State Government, be invited by county medical society officers to the attention of all their members to the end that this brain trust proposal be killed and a more democratic approach in administration of the State's health agencies be achieved.

3. That continued active, tangible co-operation with the American Medical Association be maintained by every MSMS member during these parlous times. Strength comes from unity and work.

4. That doctors of medicine throughout the state, especially in the smaller cities, be urged to stagger their half holidays, and that county medical societies be advised that the problem of all doctors taking the same weekly half holiday still exists and all efforts should be made to solve the matter through contacts and publicity to county medical society members.

5. That the 1951 House of Delegates reconsider its amendment to Chapter 5, Section 5 re Emeritus Members, and rescind its action, so that the present provisions re Emeritus Membership (practice for fifty years and membership in MSMS for twenty-five consecutive years) be continued. Emeritus Membership is the highest honor in the hands of the MSMS and its qualifications should be correspondingly high. (This matter has been re-

ferred to the Committee on Constitution and By-Laws.)

6. That consideration be given to amending the MSMS By-Laws re election of Alternate Delegates (Chapter 8, Section 10-d) in order to eliminate the annual confusion in the House of Delegates when this item of business is presented. (This matter has been referred to the Committee on Constitution and By-Laws.)

7. That consideration be given to amending the By-Laws (Chapter 8, Section 9) so that the Vice Speaker of the House of Delegates is a member of The Council and of its Executive Committee with power to vote; the Vice Speaker is now invited to all meetings of The Council and of its Executive Committee but is not entitled to vote. (This matter has been referred to the Committee on Constitution and By-Laws.)

8. That, if necessary, the MSMS House of Delegates recommend to county medical societies (upon advice of the MSMS Committee on Constitution and By-Laws) that county medical society by-laws be amended to delete any sentence similar to the following: "By virtue of the Charter granted this Society, all active members of this society are automatically members of the Michigan State Medical Society and of the American Medical Association"—inasmuch as the AMA now charges dues and not all members of the county and state medical societies have paid said dues and are not members of the AMA. If this situation applies statewide, the House of Delegates may wish to recommend such a change in the By-Laws of Michigan's component county medical societies, keeping in mind that the Constitution and By-Laws of the AMA transcends those of the MSMS and of any of its component county medical societies. (This matter has been referred to the Committee on Constitution and By-Laws).

Respectfully submitted,

R. J. Hubbell, M.D., *Chairman*
William Bromme, M.D., *Vice Chairman*
L. W. Hull, M.D.
R. S. Breakey, M.D.
G. W. Slagle, M.D.
J. D. Miller, M.D.
R. C. Pochert, M.D.
H. B. Zemmer, M.D.
L. C. Harvie, M.D.
G. B. Saltonstall, M.D.
F. H. Drummond, M.D.
C. A. Paukstis, M.D.
A. H. Miller, M.D.
W. S. Jones, M.D.
J. S. DeTar, M.D.
D. B. Wiley, M.D.
W. D. Barrett, M.D.
W. B. Harm, M.D.
R. H. Baker, M.D., *Speaker*
C. E. Umphrey, M.D., *President*
O. O. Beck, M.D., *President-Elect*
L. Fernald Foster, M.D., *Secretary*
A. S. Brunk, M.D., *Treasurer*
W. E. Barstow, M.D., *Immediate Past President*

Annual Committee Reports

ANNUAL REPORT OF THE CANCER CONTROL COMMITTEE, 1950-51

The Cancer Control Committee held two meetings during the year, on October 18, 1950, in Grand Rapids and on May 3, 1951 in Jackson. At the beginning of the year details of the committee's work were apportioned to 20 subcommittees and, through a series of monthly letters from the chairman which contained reports of the subcommittees' work, members were kept in touch with all committee activities.

The high school cancer educational program has received major emphasis during the year. A pilot study has been carried out in the high schools of Emmet, Genesee and Muskegon counties, using a manual of information and suggested classroom activities in preliminary form. At the close of the school year, copies of these manuals were returned to the Committee's office with criticisms and suggestions for consideration in preparation of a manual in permanent form for distribution to all high schools in Michigan. There has been full approval of this program by school authorities in each county where this pilot study has been under way .

Each of twenty-one colleges in Michigan has been queried as to the cancer educational program it carries on. An offer of assistance by the Committee has been made to introduce the subject to the student body where this has not already been done or to extend its use where the subject is being considered. Some, but not all, the colleges have offered co-operation in such programs.

During the year two addresses have been given by the secretary at the School of Public Health, Ann Arbor. He has also addressed more than thirty high school and college audiences, nursing and public groups.

The April, 1951, issue of The Journal MSMS was again devoted largely to cancer. The leading editorial and most of the signed articles of this issue were prepared by or procured by committee members and were devoted to various phases of the cancer problem.

The Cancer Comment page has appeared regularly throughout the year in The Journal MSMS.

Through co-operation with the committee, the Michigan Department of Health has financed and distributed copies of the bi-monthly *Cancer Bulletin* to all physicians and hospitals in Michigan since May, 1950.

The Second Michigan Cancer Conference was held in Grand Rapids, October 18, 1950, and was co-sponsored by the Michigan Department of Health and the Michigan Division, American Cancer Society. It immediately preceded the annual meeting of the Michigan Division, American Cancer Society and drew a large attendance of representatives of local cancer units. There were approximately 200 registrations for the conference and included were delegates from practically all statewide health minded organizations.

The program consisted of four papers as follows: "Cancer Control in Michigan" by A. E. Heustis, M.D.; "Physical Examinations in Industry as a Cancer Case Finding Procedure" by C. D. Selby, M.D.; "Cancer Research" by J. R. Heller, M.D.; and "Individual Responsibility in Cancer Control" by Prof. Paul D. Bagwell. The speakers formed a panel for answering questions at the luncheon which followed the morning session. Three of the papers given at this conference were published in the April, 1951, issue of The Journal MSMS.

The Third Michigan Cancer Conference under the same co-sponsors is scheduled for October 12, 1951. This meeting will be held in conjunction with the annual meeting of the Michigan Division, American Cancer Society.

Interest in the Hillsdale Plan for Tumor Detection remains at a high level throughout the country. Inquiries regarding the Plan from many states and Canada and one from South Rhodesia, Africa, have been answered. In Hillsdale County, the Plan is now in its fourth year with the public interest still maintained at the same level of previous years. Approximately 100 examinations each month are made in physicians' offices with about 3 per cent positive findings, of which 65 per cent of cases are in early and hopeful stages, compared to but 35 per cent of such cases discovered in home or hospital patients.

The committee has co-operated with the Michigan Health Department in stimulating interest in cancer reporting and in organizing cancer registers in as many local areas as possible.

An exhibit on cancer of the lung has been provided for the annual meeting MSMS at Grand Rapids.

In co-operation with the Public Relations Department,

MSMS, a plan has been developed for publicizing news in the cancer field.

The committee has stimulated additional emphasis on cancer examinations in undergraduate teaching in the two medical schools in Michigan.

The committee was represented at the annual meeting of the Public Health Cancer Association of America in St. Louis, Missouri, in October, 1950, at which a paper was given on "What is a Practical Cancer Detection Program?" (See JMSMS, p. 388, April, 1951); also at the Conference on Chronic Illness in Chicago in March, 1951.

In addition to the appropriation from the MSMS, contributions to the committee's budget have been received from thirty-two local chapters of the Michigan Division of the American Cancer Society. These contributions are gratefully acknowledged.

All inquiries referred to the office of the committee have been answered. Many of these were from high school students in other states, some from as far away as Alabama; also from schools in Michigan, asking for information to use in connection with classroom projects.

All requests for speakers before lay and school audiences have been filled.

Respectfully submitted,

H. W. Porter, M.D., *Chairman*
F. L. Rector, M.D., *Secretary*
N. F. Miller, M.D., *Advisor*
H. M. Bishop, M.D.
M. R. Burnell, M.D.
D. C. Burns, M.D.
L. A. Campbell, M.D.
E. I. Carr, M. D.
R. C. Connelly, M.D.
M. A. Darling, M.D.
H. B. Fenech, M.D.
L. E. Holly, M.D.
W. A. Hyland, M.D.
C. H. Keene, M.D.
E. C. Long, M.D.
B. E. Luck, D.D.S.
H. F. Mattson, M.D.
C. C. McCormick, M.D.
A. B. McGraw, M.D.
H. L. Miller, M.D.
J. D. Monroe, M.D.
H. M. Nelson, M.D.
H. M. Pollard, M.D.
C. J. Poppen, M.D.
H. R. Prentice, M.D.
H. L. Sigler, M.D.
D. R. Smith, M.D.
J. C. Volderauer, M.D.

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ANNUAL REPORT OF MEDICAL PROCUREMENT ADVISORY COMMITTEE—1950-51

The Medical Procurement Advisory Committee, which was appointed at the last annual session, has been extremely active during the past year and up to the present date has had four meetings. The committee has worked in co-operation with the Volunteer Medical Advisory Committee of the Selective Service System of which Dr. Grover C. Penberthy is Chairman. The Committee members have been faithful in attending meetings and in pursuing problems to which they were assigned. The executive office of the Michigan State Medical Society has been more than generous in its help and advice and its attention to the very necessary details.

The greatest concern of the committee has been with those Doctors of Medicine in priority I and II, there having been no consideration as yet concerning those in priority III.

On a number of occasions, until the Volunteer Medical Advisory Committee was established, this committee made surveys and recommendations for branches of the Armed forces. The Chairman wishes to thank each member of the Committee for his support and all others who have co-operated so willingly.

Respectfully submitted,

C. I. Owen, M.D., *Chairman*
M. J. Capron, M.D.
C. H. Frantz, M.D.
W. H. Huron, M.D.
E. C. Miller, M.D.
G. C. Penberthy, M.D.
J. R. Rodger, M.D.
H. H. Stryker, M.D.

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ANNUAL REPORT OF ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY—1950-51

The only activity in which this committee engaged during this year was to act as advisor on several occasions, ex-officio for the medical assistants. The details that were handled were of minor importance and did not necessitate any committee meeting to handle them. Several representatives were present at the annual meeting in 1950, at which time the following officers were elected and installed:

President: Irma Nelson, Lansing
President-Elect: Freda Heidelberger, Detroit
Recording Secretary: Phyllis Marquardt, Kalamazoo
Corresponding Secretary: Leah Rhodes, Lansing
Treasurer: Elizabeth Peck, Detroit

E. A. Osius, M.D., Detroit, was elected honorary member.

Respectfully submitted,

E. A. Osius, M.D., *Chairman*
W. E. Barstow, M.D.
William Bromme, M.D.
A. O. Brown, M.D.
R. H. Criswell, M.D.
C. A. Payne, M.D.

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ANNUAL REPORT OF COMMITTEE TO STUDY ADMISSION POLICY AT UNIVERSITY OF MICHIGAN HOSPITAL—1950-51

This committee met with the Director of the University Hospital and representatives of the faculty and administration of the University, to consider problems in relation to admission to the University Hospital.

It was concluded that difficulties have arisen because physicians do not have complete understanding of the necessity to explain to the patient in advance the details of cost of hospitalization. The physician often fails to contact the hospital to arrange for admission. Too often he fails to send a review of previous findings.

It was agreed by all that information on admission policy should be publicized periodically to the members of the Society. This has now been done, and will be done at intervals of six months, by pamphlet and through the pages of The Journal, Michigan State Medical Society.

Respectfully submitted,

J. S. DeTar, M.D., *Chairman*
P. A. Riley, M.D.
J. Joseph Herbert, LL.B.

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ANNUAL REPORT OF GERIATRICS COMMITTEE, 1950-51

The Geriatrics Committee held only one meeting during the year, as no formal matters of business were presented to it. Consideration was given to the problem of stimulating better housing facilities for aged persons, of an activities program being started in Detroit among homes for the aged, and of any possible means of co-operating with the Governor's new commission to study

the problems of the aged. No definite action could be taken on these matter, however, but at any opportune time, the committee feels it is a sufficiently well-informed group to be of service in the geriatrics field. We are still groping for a distinct field of usefulness.

Respectfully submitted,

W. B. Cooksey, M.D., *Chairman*
F. A. Weiser, M.D., *Vice Chairman*
W. M. LeFevre, M.D., *2nd Vice Chairman*
Sidney Adler, M.D.
R. M. Athay, M.D.
F. W. Baske, M.D.
G. S. Bates, M.D.
J. M. Bauer, M.D.
Watson Beach, M.D.
J. W. Becker, M.D.
M. G. Becker, M.D.
J. R. Brink, M.D.
B. B. Bushong, M.D.
C. D. Camp, M.D.
M. S. Chambers, M.D.
R. C. Dixon, M.D.
Douglas Donald, M.D.
R. S. Drews, M.D.
C. D. Eaton, M.D.
D. C. Ensign, M.D.
R. F. Fenton, M.D.
P. C. Gittins, M.D.
N. W. Green, M.D.
F. J. Gugino, M.D.
I. D. Harris, M.D.
M. A. Hoffs, M.D.
L. E. Irvine, M.D.
F. D. Johnston, M.D.
P. B. Kilmer, M.D.
J. J. Lightbody, M.D.
J. D. Littig, M.D.
W. L. Lowrie, Jr., M.D.
Mark Marshall, M.D.
W. D. Mayer, M.D.
W. B. McIntyre, M.D.
R. J. Mendelssohn, M.D.
J. M. Murphy, M.D.
C. J. Poppen, M.D.
H. H. Riecker, M.D.
J. G. Ruth, M.D.
W. A. Schaefer, M.D.
F. C. Swartz, M.D.
N. M. Taylor, M.D.
Myer Teitelbaum, M.D.
G. C. Thosteson, M.D.
L. E. Verity, M.D.
S. C. Wiersma, M.D.
W. J. Wilson, Jr., M.D.

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ANNUAL REPORT OF COMMITTEE ON INDUSTRIAL HEALTH, 1950-51

The second "Michigan Industrial Health Day" held on April 4, 1951, at the Rackham Building in Detroit was sponsored by the Michigan Association of Industrial Physicians and Surgeons; Wayne University College of Medicine; University of Michigan Medical School and the School of Public Health; Michigan State Association of Industrial Nurses; Michigan Industrial Hygiene Society; Department of Industrial Health of the State of Michigan and the Michigan State Medical Society's Committee on Industrial Health. The success of this meeting would indicate that the "Industrial Health Day" should be continued as an annual event. A banquet followed the day's scientific program and Dr. Lillian Gilbreth of Montclair, New Jersey, gave a fine inspirational address on "The Industrial Worker's Better World." C. E. Umphrey, M.D., president of the Michigan State Medical Society, was toastmaster. At the conclusion of the banquet, the Michigan Association of Industrial Physicians and Surgeons presented thirty-three industrial physicians with silver medallions to commemorate their service of twenty-five years or more in the field of industrial medicine. Grover C. Penberthy, M.D., and Henry Cook, M.D., past president of the Michigan State Medical Society, were among the group so honored.

The Committee on Industrial Health through its subcommittees, as outlined in the 1949-1950 report, has been encouraged by the progress made in introducing more subjects on industrial medicine in the various county medical society programs; the interest shown in industrial medical activities where "in-plant" meetings have been held and the resultant better understanding of the problems involved in the medical care of the industrially employed.

Members of the Committee on Industrial Health attended the Eleventh Annual Congress on Indusrial Health at Atlanta, Georgia, in February and the Industrial Physicians Association meeting in Atlantic City in April.

At the Congress on Industrial Health, the Council of the American Medical Association invited the state chairmen of the Committees on Industrial Health to attend their sessions. Thirteen states sent representatives. It was agreed that this innovation should be followed in future meetings because of the opportunity it afforded national and state leaders to discuss mutual problems and programs in the field of industrial medicine.

Respectfully submitted,

M. R. Burnell, M.D., *Chairman*
N. H. Amos, M.D.
A. L. Brooks, M.D.
W. P. Chester, M.D.
Henry Cook, M.D.
W. A. Dawson, M.D.
E. A. Irvin, M.D.
O. J. Johnson, M.D.
H. L. Krieger, M.D.
V. S. Laurin, M.D.
E. F. Lutz, M.D.
N. W. Scholle, M.D.
H. T. Sethney, M.D.
M. W. Shellman, M.D.
E. E. Weston, M.D.
A. H. Whittaker, M.D.
J. L. Zemens, M.D.
C. D. Selby, M.D., *Advisor*

* * *

ANNUAL REPORT OF COMMITTEE ON TUBERCULOSIS CONTROL—1950-51

The Tuberculosis Control Committee met at the Book-Cadillac Hotel, Detroit, on February 6, 1951. The following members were present:

J. W. Towey, M.D., J. A. Cowan, M.D., J. L. Egle, M.D., A. E. Heustis, M.D., R. C. Hildreth, M.D., W. L. Howard, M.D., V. C. Johnson, M.D., C. E. Lemmon, M.D., G. T. McKean, M.D., E. J. O'Brien, M.D., A. E. Price, M.D., C. J. Stringer, M.D. Other: R. F. Staudacher, Associate Public Relations Counsel for the MSMS.

The principal items brought up for discussion before the committee at this meeting were as follows:

1. *Management of recalcitrant tuberculosis patients.* Dr. Cowan, Michigan Department of Health, presented the results of a survey of 19 recalcitrant patients. After some discussion, the motion was passed requesting that Dr. Heustis, State Health Commissioner, confer with the Attorney General to secure his interpretation of the rules and regulations which presently govern the internment of tubercular recalcitrants in suitable institutions.

It was also recommended that this subject be reviewed at next year's meeting of this Committee.

2. *Home care of tuberculous patients.* It was agreed that the material regarding home care of tuberculous patients which was printed and disseminated to every MSMS member last year be repeated in the columns of

The Journal of the MSMS on several occasions this year.

3. *Proposed revision of Michigan Tuberculosis Laws* was presented to the committee. It was requested that the various committee members send their comments and suggestions with the proposed revision to Dr. A. E. Heustis, State Health Commissioner, and also to the chairman of the Tuberculosis Control Committee.

Respectfully submitted,
J. W. Towey, M.D., *Chairman*
J. A. Cowan, M.D.
J. L. Egle, M.D.
Cameron Haight, M.D.
R. J. Hanna, M.D.
A. E. Heustis, M.D.
R. C. Hildreth, M.D.
W. L. Howard, M.D.
V. C. Johnson, M.D.
C. E. Lemmon, M.D.
G. T. McKean, M.D.
E. J. O'Brien, M.D.
A. E. Price, M.D.
R. A. Rasmussen, M.D.
C. J. Stringer, M.D.
G. C. Tornberg, M.D.
B. R. Van Zwalenburg, M.D.
A. M. Wehenkel, M.D.

* * *

ANNUAL REPORT OF ADVISORY COMMITTEE TO THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS, 1950-51

At the committee meeting held in October, 1950, the following action was taken:

1. It was requested that all county medical societies appoint local advisory committees to the National Foundation for Infantile Paralysis.

2. The committee recommended that members of medical and public health professions rendering any services which may be paid for by the National Foundation of Infantile Paralysis should not be on the Executive Committee.

3. The committee again reviewed the fee schedule and recommended that the Uniform Fee Schedule for Governmental Agencies as previously adopted and approved by the Executive Committee of The Council continue to be in effect.

Respectfully submitted,
M. F. Osterlin, M.D., *Chairman*
F. M. Adams, M.D.
E. B. Cudney, M.D.
F. E. Curtis, M.D.
A. G. Goetz, M.D.
E. E. Martmer, M.D.
N. R. Moore, M.D.
J. S. Rozan, M.D.
H. H. Stryker, M.D.
F. P. Walsh, M.D.
E. A. Wishropp, M.D.

* * *

ANNUAL REPORT OF COMMITTEE ON DIABETES CONTROL (Sub-Committee of GERIATRICS COMMITTEE)—1950-51

The purpose of this committee was to co-operate with the Committee on Diabetes Detection of the Michigan State Medical Society as well as the American Diabetes Association. Each county medical society was contacted and asked to appoint a committee on diabetes detection to operate within the area covered by the county society. Most of the counties responded with active committees which carried on the program.

This year the detection program was based on education of the public. Newspaper and radio publicity was used throughout the state to acquaint the public with the symptoms and seriousness of the disease and the advantage of early diagnosis. The individual was urged to consult his family physician for tests to determine the presence of the disease. Many lay organizations about the state were also contacted and devoted part of their programs to diabetes detection. Some of the county societies established Detection Centers in County Health Units and hospitals where a free urinalysis could be done. In the case of a positive test the individual was urged to report to his family physician for further diagnosis.

It is evident to the committee that much more enthusiastic support was evident this last year on the part of the county societies than in previous years for which the committee is duly grateful.

Respectfully submitted,
W. M. LeFevre, M.D., *Chairman*
Sidney Adler, M.D.
F. W. Baske, M.D.
J. M. Bauer, M.D.
J. D. Littig, M.D.
W. L. Lowrie, Jr., M.D.
W. B. McIntyre, M.D.
W. D. Mayer, M.D.
N. M. Taylor, M.D.
Myer Teitelbaum, M.D.
G. C. Thosteson, M.D.
S. C. Wiersma, M.D.

* * *

ANNUAL REPORT OF COMMITTEE ON BLOOD BANKS—1950-51

During the year, the Blood Bank Committee had no formal meetings. The committee co-operated, however, with the Committee on Atomic and Allied Procedures as well as with the Michigan Pathological Society.

In respect to co-operaion with these other two groups, we were asked to determine "The amount of blood and plasma necessary in emergencies such as might be encountered in an atomic bombing." The various members of the Blood Bank Committee were polled for their answers, and largely on the basis of this postal type of meeting an article was written by Doctors Kasper and Kaump which appeared in the Civilian Defense number of The Journal, Michigan State Medical Society. This article was entitled "Blood Procurement in Time of Disaster."

A further action which was taken was one in which several of the members of the Blood Bank Committee co-operated with the Michigan Pathological Society in instituting a training school for physicians in Blood Procurement at the time of the 1950 meeting of the Michigan State Medical Society in Detroit. At that time a one-day school was held at which time physicians were trained in the techniques of blood typing and cross matching and further a demonstration of blood procurement was set up through the courtesy of the Michigan State Medical Society at the time of its meeting.

This summarizes the activities of this committee for the current year.

Very sincerely yours,
D. H. Kaump, M.D., *Chairman*
W. B. Cooksey, M.D.
R. H. Holmes, M.D.
A. A. Humphrey, M.D.
H. R. Prentice, M.D.

* * *

ANNUAL REPORT OF SPECIAL COMMITTEE TO MEET WITH MICHIGAN DEPARTMENT OF SOCIAL WELFARE—1950-51

Your Committee met with the Welfare Commission first on November 28, 1950, at which time many problems connected with the medical care for public assistance recipients were discussed. The results were so mutually satisfying that your committee was made a part of a permanent advisory committee to the Department of Social Welfare. As such, we have met with the Com-

mission four subsequent times, at an average interval of six weeks.

The medical and sanitation department of the Boys' Vocational School were inspected and recommendations made for their improvement at one of our meetings. A similar meeting is planned for the Girls' Training School in the near future. The new program of Aid to Disabled was thoroughly discussed and suggestions made to expedite its functions. Similarly, the other categorical assistance programs, such as, Old Age Assistance, Aid to Dependent Children, Aid to the Blind, et cetera, have been or will be, completely reappraised and any necessary changes will be recommended.

The relationship between the Social Welfare Department and your commitee has been most cordial and it is unanimously felt that a great deal of good has already been accomplished. It is the desire of the Commission that this committee be continued.

Respectfully submitted,
G. W. Slagle, M.D., *Chairman*
L. G. Christian, M.D.
Wilfrid Haughey, M.D.
R. J. Hubbell, M.D.
Mr. W. J. Maxey

* * *

ANNUAL REPORT OF COMMITTEE ON VENEREAL DISEASE CONTROL—1950-51

Two regular meetings of the Venereal Disease Control Committee were held during the last year, on December 17, 1950, and May 13, 1951, at the Porter Hotel, Lansing, Michigan. In addition, a special meeting of the Executive Committee was held in Detroit, January 6, 1951, and a social meeting of the committee was held at "Flash Light Bend" on the Au Sable River as the guests of Dr. R. S. Breakey on July 7-8, 1951. Attendance at the meetings has been very satisfactory.

At the December meeting, Rule 20 of the Michigan Department of Social Welfare governing the taking of blood tests on pregnant women in maternity homes and hospitals was discussed. It was recommended that Rule 20 be discussed by the agencies concerned before the Executive Committee of the Venereal Disease Control Committee at a future date and referred back to the Committee as a whole. Dr. Cowan reported on the excellent education program at State Fairs which reached approximately 128,000 people during 1950.

The Executive Committee of the Venereal Disease Control Committee met at the Book-Cadillac Hotel, Detroit, on January 6, 1951, with Dr. L. G. Christian and Mr. Maxey representing the Michigan Social Welfare Department, Drs. Heath and Pearse representing the Wayne County and MSMS Maternal Aid Committees, Drs. Anderson and Heustis representing Detroit and Michigan State Health Departments, and William J. Burns as Executive Director of MSMS. It was recommended that the licensing of maternity homes and maternity departments of hospitals be transferred from the Michigan Social Welfare Commission to the Michigan Department of Health and that there is no need to change Rule 20 at the present time.

At the meeting of May 13, 1951, it was moved that a booklet entitled "The Diagnosis of Syphilis by the General Practitioner" be sent to all doctors of medicine in Michigan. It was also recommended that reprints of the article "Penicillin Treatment of Syphilis" be included with this booklet.

A pilot study emphasizing the control of infectious syphilis was approved with the suggestion that the study be made in Muskegon and Berrien Counties.

It was recommended that a letter be sent to the secretaries of all county and district medical societies stating that the Venereal Disease Control Committee is eager to furnish speakers on the diagnosis and treatment of venereal disease.

A sub-committee consisting of Drs. Curtis, Keim, and Jeffries was appointed to arrange a television program over WJBK on venereal disease control in the near future.

Dr. Breakey was appointed to work up material on the accomplishments of the V.D. Control Committee for Paul deKruif's future article on Health Work in Michigan for the *Reader's Digest.*

Dr. Roy Holmes was congratulated for the effectiveness of his meaty reminders of venereal disease that have appeared in the JMSMS and requested to prepare four post cards along similar lines for distribution during the coming year.

Respectfully submitted,
L. W. Shaffer, M.D., *Chairman*
R. S. Breakey, M.D.
H. B. Bennett, M.D.
J. A. Cowan, M.D.
R. C. Crowell, M.D.
A. C. Curtis, M.D.
L. O. Geib, M.D.
E. A. Hand, M.D.
Ruth Herrick, M.D.
R. H. Holmes, M.D.
Benjamin Jeffries, M.D.
H. L. Keim, M.D.
E. S. Parmenter, M.D.
G. E. Sands, M.D.
D. E. Siler, M.D.
Frank Stiles, M.D.

HAVE YOU MADE YOUR HOTEL RESERVATIONS?

Michigan State Medical Society
86th Annual Session
Grand Rapids, September 26-27-28, 1951

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant.

Committee on Hotels, Michigan State Medical Society,
c/o E. J. Brunette, Secy.
Pantlind Hotel, Grand Rapids, Michigan

Please make hotel reservation(s) as indicated below:

Hotel.....(1st choice)

Hotel.....(2nd choice)

.....Single Room(s)

.....Double Room(s) for.....persons

.....Twin Bedded Room(s) for.....persons

Arriving September.....hour.....A.M.....P.M.

Leaving September.....hour.....A.M.....P.M.

(Names and addresses of all applicants including person making reservation.)

Name	Address	City	State
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.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Date..... Signature.....

Address..... City.....

Michigan State Medical Society
Roster 1951

(Special Memberships are indicated as follows: "E" for Emeritus Members; "L" for Life Members; "R" Retired Members; "A" for Associate Members; all others are Active Members)

Allegan County

Brachman, A. P. ..... Allegan
Brown, Lewis F. ..... 133 E. Allegan Street, Otsego
Brunson, Eugene T. ..... Ganges
Chase, Walter E. ..... Martin
Corkill, C. C. ..... Douglas
Dickinson, Clyde A. ..... Wayland
Flinn, C. C. (L) ..... 231 Marshall Street, Allegan
Goude, A. G. ..... Hopkins
Hudnutt, Orrin D. ..... Plainwell
Johnson, E. B. ..... 144 Brady, Allegan
Kromer, Robert A. ..... Wayland
Mahan, James E. ..... Allegan
Medill, Wilbur C. ..... Plainwell
Miller, K. C. ..... Saugatuck
Ramseyer, Gladwin E. ..... Plainwell
Rigterink, G. H. (L) ..... Hamilton
Rummell, Robert J. ..... Fennville
Schneiter, H. E. ..... Allegan
Stuck, O. H. ..... 101 Farmer Street, Otsego
Van Der Kolk, Bert ..... Hopkins
Van Ness, J. H. (L) ..... 326 Cutter St., Allegan
Vaughan, W. R. ..... Plainwell
Wiseman, Bertha C. ..... Box 177, Allegan

Alpena-Alcona-Presque Isle Counties

Arscott, Edward F. ..... Rogers City
Bunting, John W. ..... 110 N. First Ave., Alpena
Burkholder, Harry J. ..... Alpena State Savings Bank, Alpena
Constantine, A. E. ..... Harrisville
Finch, Donald E. ..... Onaway
Foley, A. L. ..... Rogers City
Foley, E. L. ..... Alpena
Hier, Edward A. ..... 703 S. 8th Ave., Alpena
Hoak, Carl ..... Alpena General Hospital, Alpena
Hodges, Roy W. (L) ..... Atlanta
Jackson, William P. ..... Rogers City
Kessler, Harold ..... 312 E. Chisholm St., Alpena
Leopard, Jack M. ..... 312 E. Chisholm St., Alpena
Nesbitt, Wm. E. ..... 312 Second Avenue, Alpena
O'Donnell, Francis J. ..... 312 E. Chisholm St., Alpena
Parmenter, E. S. ..... Alpena
Purdy, John W. (L) ..... 333 Washington Ave., Alpena
Ramsey, Jac A. ..... 312 E. Chisholm St., Alpena
Ries, Robert C. ..... Rogers City
Riker, John L. ..... Peoples State Bank Building, Alpena
Rowell, Wilfred J. ..... Alpena General Hospital, Alpena
Spens, James E. ..... Professional Building, Alpena
Trudeau, J. M. ..... U. S. Army Hospital, Camp Cooke, Calif.
Wagoner, Darwin E. ..... Lincoln
Wienczewski, Theophile W. ..... 811 Chisholm, Alpena

Barry County

Bernard, Prosper G. ..... Route 1, Delton
Birk, Wilbur R. ..... Hastings
Clarke, Daniel M. ..... 304 S. Jefferson, Hastings
Finnie, R. G. ..... 118 E. Walnut St., Hastings
Gwinn, Alexander B. ..... City Bank Building, Hastings
Harkness, Robert B. (L) ..... Kennett Square, Pa.
Keller, Guy C. (L) ..... 302 W. Green St., Hastings
Lofdahl, Stewart ..... Nashville
Logan, Wesley G. ..... City Bank Bldg., Hasting
Lund, C. A. E. ..... Middleville
Morris, Edgar T. (L) ..... 26 S. Main St., Nashville
Phelps, Everett L. ..... 118 E. Walnut St., Hastings
Pryor, R. B. ..... Hastings
Wedel, Herbert S. ..... 304 S. Washington, Hastings

Bay-Arenac-Iosco Counties

Alcorn, Kent A. ..... 305 Davidson Bldg., Bay City
Alcorn, Marshall ..... 305 Davidson Bldg., Bay City
Allen, Arthur D. ..... 101 W. John St., Bay City
Asline, J. Norris ..... 207 Walnut St., Essexville
Austin, Justus J. ..... 513 W. Bay, Tawas City
Ballard, W. R. (E) ..... 2000 Fifth St., Bay City
Boulton, Arthur O. (E) ..... Gladwin
Brown, George M. ..... 207 N. Walnut, Bay City
Campbell, J. S. ..... 704 N. Jackson St., Bay City
Chapin, Frederick J. ..... 101 W. John, Bay City
Connelly, C. James ..... 1104 S. Madison, Bay City
Cook, Hugh K. ..... 803 N. McLellan, Bay City
Cosens, Stanley A. ..... 101 W. John, Bay City
Crissey, Robert R. ..... 101 W. John St., Bay City
Criswell, Robert H. ..... 407 Phoenix Bldg., Bay City
Dardas, Michael J. ..... 605 Fifth Ave., Bay City
De Waele, Paul L. ..... 1106 N. Johnson St., Bay City
Dolbee, Malcolm ..... Sanford Bldg., Standish
Drummond, Fred H. ..... Kawkawlin
Dumond, Vanny H. ..... 230 Shearer Building, Bay City
Fisher, Robert E. ..... 900 N. Jackson, Bay City
Foster, L. Fernald ..... 919 Washington, Bay City
Freel, John A. ..... 1711 Center Ave., Bay City
Gamble, William G., Jr. ..... 2010 Fifth Ave., Bay City
Groomes, Charles ..... Box 473, Reno, Nev.
Grosjean, J. C. (L) ..... 1214 McKinley Ave., Bay City
Gunn, Robert P. ..... 810 Germania, Bay City
Hagelshaw, G. L. ..... 101 W. John St., Bay City
Hess. C. L. ..... General Delivery, Roscommon
Heuser, Harold H. ..... 207 Davidson Bldg., Bay City
Horowitz, S. Franklin ..... 904 N. Madison Ave., Bay City
Huckins, Edward S. ..... 436 Cass Ave., Bay City
Huckins, Rodger S. ..... 436 Cass Ave., Bay City
Hughes, E. C. (L) ..... 919 Washington, Bay City
Husted, F. Pitkin ..... 302 Davidson Bldg., Bay City
Jacoby, Abe H. ..... 2202 Ninth St., Bay City
Jens, Otto F. ..... 1106 Prairie, Essexville
Johnson, Orlen J. ..... 207 N. Walnut, Bay City
Jones, Culver ..... 900 Jackson Ave., Bay City
Kessler, Mana ..... 201 Shearer Bldg., Bay City
Kessler, Saba ..... 201 Shearer Bldg., Bay City
Knobloch, Howard T. ..... 605 Fifth Ave., Bay City
Lambert, Leslie A. ..... East Tawas
Loftin, Robert L. ..... City Hall, Bay City
MacPhail, J. C., Lt. Comm. (M) ..... 2819 Marlboro St., Norfolk, Va.
MacRae, L. Douglas ..... 813 Sherman St., Bay City
McDonnell, Walter R. ..... Pinconning
McEwan, John H. ..... 307 Davidson Bldg., Bay City
Medvezky, Michael J. ..... 1614 22nd St., Bay City
Miller, Edwin C. ..... 101 W. John St., Bay City
Mitton, Orland W. ..... East Tawas
Moore, George W. (L) ..... 200 N. Barclay, Bay City
Moore, Neal R. ..... 704 N. Jackson, Bay City
Mosier, Dwight J. ..... 101 W. John St., Bay City
Pearson, Stanley M. ..... 101 W. John St., Bay City
Reed, William S. ..... 1705½ Third St., Bay City
Reuter, Clarence W. ..... Allen Clinic, Bay City
Roberts, Frederick J. ..... Chevrolet Motor Co., Bay City
Schuele, J. M. ..... Au Gres
Shafer, Harold C. ..... 101 W. John St., Bay City
Sherman, R. N. (R) ..... Bradenton Beach, Florida
Smith, J. Campbell ..... 101 W. John St., Bay City
Staley, Hugh O. ..... Omer
Stinson, Walter S. ..... 101 W. John St., Bay City
Tarter, Clyde S. ..... 1712 Center Ave., Bay City
Taylor, R. S. ..... 900 N. Jackson, Bay City
Tompkins, D. A., Lt. (M) ..... U.S.M.C. (Med.), Parris Island, S. C.
Urmston, Paul R. ..... 303 Davidson Bldg., Bay City
Vail, Harry F. ..... 1942 Woodside, Bay City
Warren, E. C. (E) ..... 1100 Fifth, Bay City
Wilcox, James W. ..... 1115 Fifth Ave., Bay City
Wilson, Thomas G. ..... 900 N. Jackson, Bay City
Wittwer, E. A. (L) ..... 107 North Erie St., Bay City
Woodburne, H. L. ..... Davidson Bldg., Bay City
Wright, T. B. ..... 101 W. John, Bay City
Zaremba, Aloysius J. ..... 108 S. Madison Ave., Bay City
Ziliak, A. Lawrence ..... 707 N. Lincoln, Bay City

Berrien County

Anderson, Bertha....262 Pleasant St., Benton Harbor
Anderson, H. B....Watervliet
Bailey, John....204 Fidelity Bldg., Benton Harbor
Bliesmer, A. F....2208 Lakeview, St. Joseph
Bronfenbrenner, Jack....84 W. Main, Benton Harbor
Burrell, H. J....Fidelity Bldg., Benton Harbor
Butler, W. J....Peoples State Bank Bldg., St. Joseph
Cawthorne, H. J....239 Pipestone, Benton Harbor
Coffelt, Carl F....St. Joseph
Conklin, Frederick....Berrien Center
Conway, Joseph....Watervliet
Conybeare, R. C....Fidelity Bldg., Benton Harbor
Cowdery, K. H....1600 Niles, St. Joseph
Crowell, Richard C....16 Peoples State Bank Bldg., St. Joseph
Eidson, Hazel....Berrien Springs
Elliott, J. Colin....207½ E. Front St., Buchanan
Emery, Clayton S....St. Joseph
Faber, Michael....209 State Bank Bldg., Benton Harbor
Fattic, G. R., Jr....P. O. Box 234, Niles
Feeley, M. J....505 Pleasant St., St. Joseph
Friedman, Morris E....Box 87, New Buffalo
Frost, Robert J....St. Joseph
Garrett, Evan L. ....204 Starr Building, Niles
Gillette, Clarence H....Niles
Harper, Ina M....190 Michigan Ave., Benton Harbor
Harrison, L. L....304 Main St., Niles
Hart, R. T....P. O. Box 209, Niles
Helkie, William L. (E)....203 S. Ironwood Dr., South Bend, Ind.
Henderson, Fred....107 N. Second, Niles
Hershey, N. J....107 N. Second, Niles
Holt, Robert E., Jr....107 North Second, Niles
Huff, H. D....Niles
Irgens, Edwin....11 Peoples State Bank, St. Joseph
Kelsall, H. I....1600 Niles, St. Joseph
King, B. B....210 Fidelity Bldg., Benton Harbor
King, Frank A., Jr....Fidelity Bldg., Benton Harbor
Kloss, H. J....Mercy Hospital, Benton Harbor
Landgraf, R. L....107 N. Second St., Niles
Lawton, Clare V....Fidelity Bldg., Benton Harbor
Leva, John B....Fidelity Bldg., Benton Harbor
Lindenfeld, Frederick H.,....8 N. St. Joseph, Niles
Lininger, R. E....Dept. of Path., Mercy Hosp., Benton Harbor
Litvin, L. E....Berrien Springs
Louisell, C. T....College Ave., St. Paul, Minn. (A)
Louisell, James....Eau Claire
Manning, John....St. Joseph
McNabb, Arthur A....Watervliet
Miller, E. A....Berrien Springs
Mitchell, C. A. (L)....444 Pipestone, Benton Harbor
Moore, T. Scott....Niles
Ozeran, Charles J....98 Water Street, Benton Harbor
Parker, L. B....Berrien Springs
Polansky, Sanford....West Main St., Benton Harbor
Porter, Charles B....170 Wall St., Benton Harbor
Pritchard, Harold M....12 N. Fourth St., Niles
Rague, Paul O....Mercy Hospital, Benton Harbor
Ray, D. K....St. Joseph
Reagan, Robert E....190 Michigan St., Benton Harbor
Rice, F. A....318 N. Fourth St., Niles
Rice, Franklin G....324 N. Fourth St., Niles
Richmond, D. M....314½ State St., St. Joseph
Ruth, J. Griswold....190 Washington, Benton Harbor
Sowers, Bouton F....Fidelity Bldg., Benton Harbor
Strayer, John W....107 N. Second St., Niles
Strick, Marvin H....311 Fidelity Bldg., Benton Harbor
Swingle, Alvin J....84 W. Main, Benton Harbor
Thorup, Don W....610 Fidelity Bldg., Benton Harbor
Tompkins, C. E....680 Pipestone, Benton Harbor
Urist, Maurice D....454 Pipestone, Benton Harbor
Waterson, Roy S....Niles
Westervelt, H. O....539 Pearl Street, Benton Harbor
Winegar, Alvon C....Medical Arts Bldg., Benton Harbor
Woodford, Hackley E....191 Michigan, Benton Harbor

Branch County

Aldrich, Napier S....162 Marshall St., Coldwater
Andrews, Frank A....Box 148, Coldwater
Bailey, J. E....73 W. Chicago, Coldwater
Beck, Perry C....235 N. Walker St., Bronson
Bien, W. J....2 W. Chicago, Coldwater
Culver, Bert W....72 Division, Coldwater
Culver, Dean T....78 Division, Coldwater
Fraser, R. J....22 W. Pearl St., Coldwater
French, Merle R....35 South Sprague St., Coldwater
Gomley, Henry C....108 E. Chicago, Bronson
Johnson, D. B....Coldwater
Leitch, R. M....304 N. Broadway, Union City
McLain, R. W. (L)....108 Arthur St., Battle Creek
Meier, H. J....87 W. Pearl St., Coldwater
Mooi, H. R....72 W. Chicago St., Coldwater
Olmstead, Kenneth L....131 N. Hanchett St., Coldwater
Rees, Kendall B....Box 148, Coldwater
Rennell, E. J....Box 148, Coldwater
Slosser, Paul....Tekonsha
Thomas, J. A....18 N. Monroe St., Coldwater
Wade, R. L....116 E. Chicago, Coldwater
Walton, N. J....61 E. Chicago St., Quincy
Weidner, H. R....50 Division St., Coldwater

Calhoun County

Albright, Arnold A., Col., MC (A)....Percy Jones General Hospital, Battle Creek
Amos, Norman H....1704 Wolverine Tower, Battle Creek
Anderson, Harold E....501 Post Bldg., Battle Creek
Barden, Stuart P....Leila Y. Post Montgomery Hosp., Battle Creek
Baribeau, Roy H....531 Post Bldg., Battle Creek
Becker, Harry F....Route 3, Box 303A, Battle Creek
Berwald, Herbert T., Col., M.C. (A)....Percy Jones Hospital, Battle Creek
Beuker, Herman....120 E. Michigan Ave., Marshall
Bodine, Harold R....1506 Security Bank Bldg., Battle Creek
Bonifer, Philip P....1008 Wolverine Tower, Battle Creek
Bonzelaar, Marvin, Lt., M.C. (A)....Perry Jones Hospital, Battle Creek
Brainard, C. W....1002 Security Bank Bldg., Battle Creek
Brown, C. R., Lt. Col., M.C. (A)....Percy Jones Army Hospital,
Brown, Robert W....1206 Security Bank Bldg., Battle Creek
Battle Creek
Calloway, N. O., Maj., M.C. (A)....Percy Jones Army Hospital, Battle Creek
Campbell, A. F....103 E. Mulberry St., Albion
Campbell, Richard J....1106 Central Tower, Battle Creek
Capron, Manley J....618 Post Bldg., Battle Creek
Chandler, Edward M. (A)....Leila Hospital, Battle Creek
Chynoweth, W. R....207 Post Bldg., Battle Creek
Cooper, J. E. (L)....298 W. Van Buren, Battle Creek
Curry, Robert K....Homer
Custer, H. B. (A)....Leila Hospital, Battle Creek
Diamante, Paul J. (A)....26 Maryland Drive, Battle Creek
Dickson, A. R....1002 Sec. Bank Bldg., Battle Creek
Dodge, Warren M., Jr....1207 Wolverine Tower, Battle Creek
Fairbanks, Stephen....119½ N. Superior, Albion
Finch, D. L....806 Sec. Bank Bldg., Battle Creek
Forsyth, J. E....217½ S. Superior St., Albion
Fraser, Robert H....1112 Security Bank Bldg., Battle Creek
Funk, L. D....Athens
Gething, Joseph W. (L)....803 Security Bank Bldg., Battle Creek
Giddings, A. M....1704 Wolverine Tower, Battle Creek
Gilfillan, Margery J. (L)....Battle Creek San , Battle Creek
Gorsline, C. S. (L)....85 Orchard Place, Battle Creek
Graubner, F. L....Marshall
Griffin, Martin, Col. MC (A)....Percy Jones Army Hospital, Battle Creek
Hansen, E. L....216 North Ave., Battle Creek
Hansen, Harvey C....417 Post Bldg., Battle Creek
Haughey, Wilfrid (L)....610 Post Bldg., Battle Creek
Heald, C. W. (L)....291 W. Michigan, Battle Creek
Henderson, Philip M....109 West Erie St., Albion
Herzer, Henry A. (L)....Albion
Hibbs, Donald K....622 Post Bldg., Battle Creek
Hills, C. R. (A)....1414 Security Bank Bldg., Battle Creek
Hollands, Robert A....1501 W. Michigan Ave., Battle Creek
Holtom, B. G....815 Security Bank Bldg., Battle Creek
Hoyt, Aura A. (L)....612 Security Bank Bldg., Battle Creek
Hubly, James W....1407 Security Nat. Bank Bldg., Battle Creek
Humphrey, Arthur A....914 Security Bank, Battle Creek
Humphrey, A. E....122 N. Madison, Marshall
Jeffrey, J. R....Battle Creek San, Battle Creek
Jesurum, Harold, Lt. Col., M.C. (A)....Percy Jones Army Hospital, Battle Creek
Jones, Aubrey H. (A)....Veterans Hospital, Fort Custer
Jones, T. K....118 W. Green St., Marshall
Keagle, Leland R....196 North Ave., Battle Creek
Keeler, K. B....205½ S. Superior St., Albion
Kelleher, George T....613 Post Bldg., Battle Creek
Kimball, A. S., Jr. (A)....8th Floor, University Hospital, Ann Arbor
Kinde, M. R....258 Champion St., Battle Creek
Kingsley, Paul C....1407 Security Bank Bldg., Battle Creek
Kolvoord, Theodore....505 Security Bank Bldg., Battle Creek
La France, N. P....1002 Wolverine Tower, Battle Creek
Lam, Francis L....408½ Capital S.W., Battle Creek
Lancaster, V. B., Capt., M.C. (A)....Percy Jones Army Hospital, Battle Creek
Levy, Joseph....1208 Wolverine Tower, Battle Creek
Lewis, W. B....367 Champion, Battle Creek
Linn, Frank D....109½ S. Superior St., Albion
Lowe, Kenneth H....401 Security Bank Bldg., Battle Creek
Lowe, Stanley T....1009 Bank Bldg., Battle Creek
MacGregor, Archibald E. (L) ....1510 Security Bank Bldg., Battle Creek
Mahoney, F. A., Maj., M.C. (A)....Percy Jones Army Hospital, Battle Creek
McNair, Lawrence N....205½ S. Superior St., Albion
Medinets, H. E., Capt., M.C. (A)....Percy Jones Army Hospital, Battle Creek
Meister, F. O....1007 Security Bank Bldg., Battle Creek

Melges, Fred J.....1506 Security Bank Bldg., Battle Creek
Mercer, C. M. ....512 Michigan National Bank Bldg., Battle Creek
Moody, J. E. (A).....Detroit TB San, 1800 Tuxedo Ave., Detroit
Morrison, Donald B.....806 Security Bank Bldg., Battle Creek
Moss, H. L. (A).....Leila Hospital, Battle Creek
Mowrey, F. H., Col., M.C. (A).....Percy Jones Army Hospital, Battle Creek
Mullenmeister, Hugh F.....275 Capital N.E., Battle Creek
Mustard, Russell L.....1407 Security Bank Bldg., Battle Creek
Newton, W. A., Jr., Capt., M.C. (A).....Percy Jones Army Hospital, Battle Creek
Patrick, Gilbert T.....505 Security Bank Bldg., Battle Creek
Pearson, Donald J.....302 Post Bldg., Battle Creek
Power, J. R.....140 N.E. Capital, Battle Creek
Putman, Willard N.....527 Post Bldg., Battle Creek
Robbert, John.....714 Security Bank Bldg., Battle Creek
Roberts, E. H.....American Legion Hospital, Battle Creek
Robins, Hugh.....City Hall, Battle Creek
Robinson, A. L.....231 S. Fourth St., Burr Oak
Rorich, Wilma Weeks .....166 Capital Ave. N.E., Battle Creek
Rosenfeld, J. E.....158 Capital N.E., Battle Creek
Rowan, Russell C.....205½ S. Superior, Albion
Royer, Clark W.....1508 Wolverine Tower, Battle Creek
Schwarz, Frank W.....31 Orchard Place, Battle Creek
Sharp, A. D.....308 S. Superior, Albion
Shipp, Leland P.....1414 Security Bank Bldg., Battle Creek
Shellenberger, Herbert M.....108½ W. Michigan, Marshall
Sibilsky, A. C.....900 Wolverine Tower, Battle Creek
Simpson, Robert S.....1507 Wolverine Tower, Battle Creek
Slagle, George W.....1206 Security Bank Bldg., Battle Creek
Sleight, James D.....401 Security Bank Bldg., Battle Creek
Stadle, Wendell H.....1506 Security Bank Bldg., Battle Creek
Stiefel, Richard.....1407 Security Bank Bldg., Battle Creek
Strohmenger, Frank J.....400½ S. Superior St., Albion
Swartz, George K.....Battle Creek San., Battle Creek
Tannenholz, Harold S.....1614 Security Bank Bldg., Battle Creek
Taylor, Clifford B.....308½ S. Superior St., Albion
Upson, W. O. (L).....422 S. Freeman, Oceanside, Calif.
VanderVoort, Wm. V. (L).....Battle Creek San., Battle Creek
Verity, Lloyd E.....1414 Security Bank Bldg., Battle Creek
Walker, Charles S.....709 W. Van Buren, Battle Creek
Walters, John F.....41 North Washington, Battle Creek
Wencke, Carl G.....1015 Security Bank Bldg., Battle Creek
Willison, Charles H. (A).....Leila Y. Post Hosp., Battle Creek
Winslow, Sherwood B.....612 Post Building, Battle Creek
Worgess, Duane R.....45 Territorial Road W., Battle Creek
Wu, Jack Foy.....American Legion Hospital, Battle Creek
Yannitelli, S. A.....A. S. Kimball San., Battle Creek
Zheutlin, Bertram.....158 Capital Ave. N.E., Battle Creek
Zindler, G. A.....1206 Security Tower, Battle Creek

Cass County

Adams, Uriah M.....Marcellus
Clary, Rudolph I.....Dowagiac
Everett, Dan W.....Edwardsburg
Hickman, John H.....212½S. Front St., Dowagiac
Loupee, George E.....Dowagiac
Loupee, S. L.....Dowagiac
Pierce, Kenneth C.....140½ S. Front St., Dowagiac
Rutz, L. M.....Marcellus
Zwergel, E. H.....Cassopolis

Chippewa-Mackinac Counties

Bandy, F. C. (R).....Franklin Manor, Sarasota, Florida
Blair, Herbert M.....300 Court St., Sault Ste. Marie
Blue, J. J.....Cedarville
Clausen, C. H.....300 Court St., Sault Ste. Marie
Conrad, G. A., (E).....521 Ashmun, Sault Ste. Marie
Cowan, Donald A.....R. F. D. No. 1, Sault Ste. Marie
Finlayson, Donald D.....309 Ashmun St., Sault Ste. Marie
Goddard, G. B.....Pickford
Goldberg, A. H.....Sault Ste. Marie
Hagele, Marie A.....300 Court St., Sault Ste. Marie
Hamel, Herbert E.....St. Ignace
Harrington, H. M.....519 Ashmun, Sault Ste. Marie
Howe, Donnell C.....300 Court St., Sault Ste. Marie
Howe, Gertrude E.....300 Court St., Sault Ste. Marie
Mackie, Thomas B.....300 Court St., Sault Ste. Marie
McBryde, Lyman M.....Masonic Bldg., Sault Ste. Marie
Mertaugh, William F.....501 Adams Bldg., Sault Ste. Marie
Montgomery, B. T.....309 Ashmun, Sault Ste. Marie
Rhind, Earl S.....300 Court St., Sault Ste. Marie
Scott, Dwight F.....300 Court St., Sault Ste. Marie
Trapasso, Tony J.....300 Court St., Sault Ste. Marie
Venier, A. G.....519 Ashmun St., Sault Ste. Marie
Wallen, L. J.....409 Ashmun St., Sault Ste. Marie
Willison, C. (E).....Sault Ste. Marie
Yale, I. Victor.....200 Ashmun St., Sault Ste. Marie

Clinton County

Bennett, George W.....Elsie
Cook, Bruno.....Westphalia
Elliott, Bruce R.....Ovid
Fillinger, Wells B.....Ovid
Foo, Charles T.....St. Johns
Graber, Virgil R.....St. Johns
Henthorn, A. C. (R).....RFD No. 3, St. Johns
Kirker, J. G.....Fowler
Luton, F. E.....St. Johns
McNamara, J. W.....St. Johns
McWilliams, W. B.....Maple Rapids
Russell, Sherwood R.....St. Johns
Slagh, Earl M.....Elsie
Smith, Frank W.....Ovid
Stephenson, W. F. (M).....108 East McConnell, St. Johns
Stoller, Paul F.....308 N. Mead St., St. Johns

Delta-Schoolcraft Counties

Anderson, F. C.....First Nat. Bank Bldg., Escanaba
Benson, Gilbert W.....100 N. 10th St., Escanaba
Bernier, A. Barroso .....Nahma
Boyce, Donald H. ..... 1007 Ludington, Escanaba
Brenner, Ervin J.....Manistique
Carlton, Arthur J.....1103 Ludington, Escanaba
Chenoweth, Nancy R. (E).....Peterborough, Ontario, Canada
Dehlin, James R.....1102 Wisconsin, Gladstone
Frenn, Nathan J.....Bark River
Fyvie, James H.....Manistique
Groos, Harold Q.....1015 First Ave. S., Escanaba
Groos, Louis P.....1015 First Ave. S., Escanaba
Harrison, W. C.....1219 N. Ninth, Escanaba
Hult, Otto S.....1005 Delta, Gladstone
Kee, Charles E.....1102 Wisconsin, Gladstone
Lambie, M. W.....Gladstone
Lemire, Donald F.....1104 S. First, Escanaba
Lemire, Wm. A.....1106 S. First, Escanaba
Lindquist, N. L.....531 S. 14th, Escanaba
McInernev, Thomas A.....1221 Ludington, Escanaba
Miller, Albert H.....904 Wisconsin, Gladstone
Moll, G. W. (E).....15063 Greenview Ave., Detroit
Ryde, R. E.....1400 Second Ave. So., Escanaba
Shaw, George A.....Manistique
Walch, John J.....1103 Ludington, Escanaba
Wehner, Merle E.....Manistique

Dickinson-Iron Counties

Addison, E. R.....412 Superior St., Crystal Falls
Alexander, W. H.....Iron Mountain
Boyce, George H.....First Nat'l Bank Bldg., Iron Mountain
Browning, James L.....212 E. B. St., Iron Mountain
Cooper, Charles A.....230 Washington Ave., Stambaugh
Fiedling, William.....Norway
Haight, Harry H. (A) .....7125 Glaston Road, Washington, D. C.
Hayes, Willard N.....Norway
Huron, Willis H. .....107 E. A St., Iron Mountain
Irvine, Lionel E.....422 Third, Iron River
Kofmehl, Wm. J.....Stambaugh
McCormack, Edward.....Niagra, Wisconsin
McEachran, Hugh D.....Iron Mountain
Menzies, Clifford G.....Iron Mountain
Palm, E. Theodore.....412 Superior St., Crystal Falls
Retallack, R. C.....422 River St., Iron River
Schmutzler, W. A.....Kingsford
Schroeder, J. M.....1115 Stockbridge, Iron Mountain
Smith, Donald R.....Iron Mountain
Steinke, Charles G.....517 Stephenson, Iron Mountain

Eaton County

Arner, Fred L. ... Bellevue
Brown, B. P. ... 339 S. Main, Charlotte
Carothers, Daniel J. ... Charlotte
DeLand, C. L. ... Olivet
Engle, Paul H. ... Olivet
Garlock, F. C. ... Grand Ledge
Hannah, Harry W. ... Charlotte
Harrod, Gordon R. ... Grand Ledge
Hoffer, William E. ... Charlotte
Imthun, Edgar F. ... 113 E. Jefferson, Grand Ledge
Johnson, Robert C. ... Charlotte
Meinke, Albert H. ... 702 S. Main, Eaton Rapids
Myers, Albert W. ... Potterville
Sevener, Lester G. ... Charlotte
Stucky, G. C. ... Eaton Co. Health Dept., Box 140, Charlotte
Van Ark, Bert ... 702 S. Main, Eaton Rapids
Van Ark, Herman F. ... 702 S. Main, Eaton Rapids
Whitlock, Stanley C. ... Dimondale
Willits, C. O. ... Charlotte

Genesee County

Adams, Burnell H. ... 2002 E. Court St., Flint
Adams, Chester H. ... 2125 Detroit St., Flint
Anderson, Harley H. ... 11280 N. Saginaw, Mt. Morris
Andrews, Nelson A. C. ... Flushing
Anthony, George E. ... 1015 Detroit St., Flint
Backus, Glenn R. ... 633 Mott Foundation Bldg., Flint
Bald, Frederick W. ... 610 Mott Foundation Bldg., Flint
Barbour, Fleming A. ... 1439 Mott Foundation Bldg., Flint
Baske, Franklin W. ... 923 Maxine St., Flint
Bateman, L. G. ... 1928 Lewis, Flint
Benson, J. C., Sr. (L) ... 727 Clifford St., Flint
Benson, John C., Jr. ... 710 Genesee Bank Bldg., Flint
Bernstein, Eli N. ... 409 Kresge Bldg., Flint
Beyer, Damon P. ... 145 Vienna St., Clio
Beyer, George D. ... 145 Vienna St., Clio
Biggar, H. R. ... 3109 S. Saginaw, Flint
Bishop, D. L. ... 2226 Detroit St., Flint
Blakely, Arthur C. ... 432 N. Saginaw, Flint
Bogart, Leon M. ... 1008 Genesee Bank Bldg., Flint
Boles, William P. ... 714 Beach St., Flint
Bonathan, Alvin T. ... 606 First Nat. Bldg., Flint
Bradley, Robert M. ... 420 Genesee Bank Bldg., Flint
Brain, R. Gordon ... 509 First Nat. Bank Bldg., Flint
Branch, Hira E. ... 821 Mott Fd. Bldg., Flint
Brasie, Donald R. ... 907 Citizens Bank Bldg., Flint
Briggs, Guy D. ... 206 Genesee Bank Bldg., Flint
Bruce, William W. ... Swartz Creek
Burkett, L. V. ... County Court House, Flint
Burnell, Max R. ... 3301 Westwood Parkway, Flint
Burnside, Howard B. ... University Hospital, Little Rock, Ark.
Caster, E. Wilbur ... 10505 LaSalle Blvd., Huntington Woods
Chambers, Myrton S. ... 839 Mott Fd. Bldg., Flint
Chandler, M. E. (L) ... 929 Woodlawn Park Drive, Flint
Charters, J. H. (E) ... 11089 Fenton Road, Fenton
Clark, Clifford P. ... 502 E. Second, Flint
Collins, James I. ... 902 Stockdale, Flint
Colwell, C. W. ... 706 Citizens Bank Bldg., Flint
Connell, John T. ... 305 Dryden Bldg., Flint
Conover, George V. ... 420 Genesee Bank Bldg., Flint
Conover, McClellan ... 312 Paterson Bldg., Flint
Conover, T. Sidney ... 420 Genesee Bank Bldg., Flint
Cook, Henry ... 326 Genesee Bank Bldg., Flint
Covert, Floyd L. (L) ... Gaines
Craig, William G. ... 717 Mott Foundation Bldg., Flint
Crane, Harley C. ... 124 W. 4th St., Flint
Credille, Barney A. ... 813 Genesee Bank Bldg., Flint
Curry, George J. ... 813 Genesee Bank Bldg., Flint
Curtin, John H. ... 507 Citizens Bank Bldg., Flint
Cutler, G. Campbell ... 2415 Detroit St., Flint
David, T. George ... 5502 N. Saginaw, Flint
Delzingro, N. ... Davison
Denholm, Nan H. ... 811 Mott Foundation Bldg., Flint
Dickstein, Bernard ... 201 Dryden Bldg., Flint
Dimond, Edwin G. ... 209 Genesee Bank Bldg., Flint
Dodds, Frederick E. ... 1336 Lewis St., Flint
Drewyer, Glen E. ... 507 Metropolitan Bldg., Flint
Eichhorn, Ernest M. ... 1112 Mott Foundation Bldg., Flint
Eickhorst, Thomas N. ... 210 E. Court St., Flint
Elliott, Hardie B. ... 409 Dryden Bldg., Flint
Engelman, R. M. ... 1013 Mott Foundation Bldg., Flint
Ettinger, Ralph D. ... Fenton
Farhat, Maynard M. ... 620½ W. Court St., Flint
Fee, Manson G. ... 311 Kresge Bldg., Flint
Finkelstein, Theodore ... 1415 Broadway, Flint
Flynn, Southard T. ... 1121 Mott Foundation Bldg., Flint
Foley, Sydney I. ... 619 Mott Foundation Bldg., Flint
Fuller, Harvey T. ... Mt. Morris
Gelenger, S. M. (M) ... U. S. Army Hospital, Camp Atterbury, Ind.
Gleason, N. A. ... 1310 Mott Foundation Bldg., Flint
Golden, H. Maxwell ... 215 N. Saginaw, Flint
Goodfellow, B. A. (L) ... 506 Page St., Flint
Gorne, Saul S. ... 400 F. P. Smith Bldg., Flint
Griffin, Ernest P., Jr. ... 619 Mott Foundation Bldg., Flint
Grover, H. F. ... 310 Dryden Bldg., Flint
Guile, Gurdon S. ... 1621 Dupont St., Flint
Gundry, George L. ... 11736 Saginaw, Grand Blanc
Gutow, Isadore ... 607 Citizens Bk. Bldg., Flint
Gutow, J. J. ... 607 Citizens Bk. Bldg., Flint
Hauge, Robert F. ... 210 E. Court St., Flint 3
Halligan, Raymond S. (L) ... 405 East First St., Flint
Hamady, Ruth ... 228 Welch Blvd., Flint
Hamilton, A. J. ... Fisher Body Co. No. 2, 3100 Van Syke Rd., Flint
Harper, Alex W. (L) ... 2503 Detroit St., Flint
Harper, Homer ... 2503 Detroit St., Flint
Harrison, Leo D. (R) ... 1132 Woodside Drive, Flint
Hawkins, James E. ... 1226 Leith St., Flint
Hays, George A. ... City Health Dept., Hurley Hospital, Flint
Hiscock, Harold H. ... 1315 Mott Fdt. Bldg., Flint
Hooper, Kendall ... 714 Beach St., Flint
Houston, James (L) ... Swartz Creek
Hubbard, Wm. B. ... 302 Paterson Bldg., Flint
Jermstad, Robert J. ... 633 Mott Fdtn. Bldg., Flint
Johnson, Arthur H. ... 3219 North St., Flint
Johnson, Frank D. ... 202 Paterson Bldg., Flint
Jones, Lafon ... 1004 Genesee Bank Bldg., Flint
Judd, Alvin E. ... 2315 Davison Road, Flint
Kaleta, Edward ... 3101 N. Saginaw St., Flint
Kaufman, L. D. ... 4002 N. Saginaw, Flint
Knapp, William D. ... 201 Kresge Bldg., Flint
Koop, Chester ... Genesee Co. San., Flint
Kretchmar, Arthur H. ... 608 First National Bldg., Flint
Kurtz, John J. ... 421 Dryden Bldg., Flint
Laird, James I. ... 10114 Main St., Goodrich
Leach, J. L. ... 3007 Industrial Ave., Flint
Limbach, David R. ... Hurley Hospital, X-Ray Dept., Flint
Livesay, Jackson E. ... 621 Mott Fdtn. Bldg., Flint
Logan, George W. (L) ... Flushing
MacDuff, R. Bruce ... 220 Genesee Bk. Bldg., Flint
MacGregor, Delbert M. ... 701 Dayton W., Flint
Macksood, Joseph A. ... 2501 N. Saginaw St., Flint
McArthur, Arthur ... 1539 Mott Fdtn. Bldg., Flint
McCabe, Margaret M. ... 420 Genesee Bk. Bldg., Flint
McGarry, B. G. ... Fenton
McGarry, Roy A. ... 418 Dryden Bldg., Flint
McKenna, Oscar W. (E) ... 507 Harrison St., Flint
McLeod, Kenneth W. A. ... 304 Paterson Bldg., Flint
Michall, S. R. ... 907 Welch, Flint
Michels, Robert M. ... 610 E. Main, Flushing
Miller, E. E. ... 2902 Detroit St., Flint
Miller, Loren Eugene ... 2645 Corunna Road, Flint 3
Miltich, Anthony J. ... 415 Dryden Bldg., Flint
Moore, Kenneth B. ... 1613 Mott Fdtn. Bldg., Flint
Moore, Wesley P. ... 3101½ Industrial Ave., Flint
Morrish, Ray S. ... 1715 Crescent Drive, Flint
Morrison, William H. ... 205 Perry Road, Grand Blanc
Morrissey, V. H. ... 101 Stockdale St., Flint
Mosier, Edward C. ... Otisville
Odle, Ira D. ... 201 Welch Blvd., Flint
O'Neil, C. H. (R) ... Deckerville
Orr, J. Walter (L) ... Orrs Point Lake, Fenton
Osher, Seymour L. ... 506 National Bldg., Flint
Pfeifer, A. C. ... Mt. Morris
Phillips, Robert L. ... 706 Citizens Bank Bldg., Flint
Phillips, Robert W. ... 829 Stockdale, Flint
Pratz, Oliver C. ... 1303 Detroit St., Flint
Preston, Otto ... Chevrolet Motor Co., Flint
Purcell, F. L. ... Goodrich
Ragan, Russell M. ... 3602 Beecher, Flint 3
Rawlings, J. Mott ... City Health Dept., Flint
Reeder, Frank E. ... 808 Genesee Bank Bldg., Flint
Reichard, Orill (L) ... 1507 Detroit St., Flint
Reid, Wells C. ... Goodrich
Reynolds, A. J. (L) ... 806 Genesee Bank Bldg., Flint
Richeson, Vern N. ... 405 Sill Bldg., Flint
Rieth, George F. ... 1402 Davison Road, Flint
Roberts, Floyd A. ... 428 Thompson St., Flint
Rowe, John B. ... 312 Paterson Bldg., Flint
Rulney, Max ... 1128½ Chevrolet Ave., Flint
Rundles, Walter Z. ... 304 First National Bldg., Flint
Rynearson, W. J. ... 308 Roberts St., Fenton
Sandy, Kenneth R. ... 2701 Detroit St., Flint
Scavarda, Charles J. ... 304 First National Bldg., Flint
Schiff, B. A. ... 511 Sill Bldg., Flint
Schreiber, E. Oskar ... 421 Kresge Bldg., Flint
Schwartz, J. M. ... Fisher Body No. 1, Flint
Scott, Robert D. ... 1215 Detroit St., Flint
Searles, Karl F. ... 2932 Corruna Road, Flint
Shantz, Leighton O. ... 1239 Mott Fdtn. Bldg., Flint
Shapiro, Joseph ... 417 Metropolitan Bldg., Flint
Sheeran, Daniel H. ... 809 Genesee Bank Bldg., Flint
Shipman, Charles W. ... 325 E. First St., Flint
Sirna, Anthony R. ... Chevrolet Mtr. Co., 300 N. Chevrolet Ave., Flint
Sleeman, B. R. ... 129 E. Broad St., Linden
Smith, DeVerne C. (L) ... 810 Sill Bldg., Flint
Smith, Eugene C. ... 814 Mott Fdtn. Bldg., Flint
Smith, Maurice J. ... 2801 N. Saganaw, Flint
Sniderman, Benjamin F. ... 727 Beach St., Flint
Snyder, Charles E. ... Swartz Creek
Sorkin, Morris L. ... 718 Beach St., Flint
Sorkin, Samuel S. ... 718 Beach St., Flint
Sparks, Harvey V. ... 603 First National Bldg., Flint
Steffe, Ralph S. ... 610 Mott Fdtn. Bldg., Flint
Steinman, Floyd H. ... 734 Mott Fdtn. Bldg., Flint
Stevens, Philip K. ... 201 Mich. Theatre Bldg., Flint

Stevenson, William W.....416 Kresge Bldg., Flint
Streat, Rudolph W.....218 East 8th St., Flint
Stroup, Clayton K.....2002 E. Court St., Flint
Sutherland, James K.....402 E. Third St., Flint
Sutton, George.....303 W. Court St., Flint
Sutton, Mahlon R. (L).....2110 Detroit St., Flint
Thompson, Alvin.....1121 Mott Fdtn. Bldg., Flint
Thompson, Jack.....309 Kresge Bldg., Flint
Tofteland, Elmer H.....302 W. Third Ave., Flint
Tower, Rita B.....Genesee County San., Flint
Treat, David L. (L).....1110 S. Drive, Flint
Trumble, George W. (L).....2500 S. Saginaw, Flint
Turner, Merald G.....316 Dryden Bldg., Flint
Tuuri, Arthur L.....Mott Clinic, Hurley Hospital, Flint
Van Harn, R. S.....Buick Motor Co., Flint
Vary, Edwin P.....608 First National Bldg., Flint
Vaughan, Edgar J.....Linden
Walcott, Carver G.....Fenton
Ward, Nell M.....1139 Mott Fdtn. Bldg., Flint
Ware, Frank A.....514 Genesee Bank Bldg., Flint 3
Wark, David R.....1315 Detroit St., Flint
Wentworth, John E.....1651 Chevrolet Ave., Flint
Werness, Inga W.....304 First National Bank Bldg., Flint
White, C. H.....106 River St., Fenton
Williams, William S.....3398 S. Saginaw St., Flint
Willoughby, Gordon L.....5009 N. Saginaw St., Flint
Willoughby, Leslie L. (L).....1402 Davison Rd., Flint
Wills, Thomas N.....706 W. Court St., Flint
Winchester, Walter H. (L).....515 Genesee Bank Bldg., Flint
Woughter, Harold W.....1312 Mott Fdtn. Bldg., Flint
Wright, Donald R.....403 W. Court St., Flint
Wyman, J. S.....9020 S. Saginaw Road, Grand Blanc
Zeis, M. G.....718 Beach St., Flint

Gogebic County

Albert, Samuel G.....119 Suffolk St., Ironwood
Anderson, Charles E.....Bessemer
Davidson, Donald L.....Bessemer
Eisele, David C.....109 Aurora, Ironwood
Franck, John R.....Wakefield
Gertz, M. A.....109 E. Aurora St., Ironwood
Gingrich, W. A.....109 E. Aurora, Ironwood
Gorilla, A. C.....210 S. Suffolk St., Ironwood
Harrington, R. R.....103 S. Suffolk St., Ironwood
Lieberthal, Maurice J.....104 S. Suffolk, Ironwood
Lieberthal, Paul R.....104 S. Suffolk, Ironwood
Lojacono, Salvatore.....Grand View Hosp., Ironwood
Maccani, Wm. L.....Ironwood
McEnroe, John E.....Newport Hospital, Ironwood
Nezworski, Henry T.....210 S. Suffolk, Ironwood
O'Brien, A. J.....216 E. Aurora St., Gogebic Clinic, Ironwood
Pinkerton, Harold A.....Newport Hospital, Ironwood
Santini, F. J.....109 E. Aurora St., Ironwood
Stevens, Charles E.....216 E. Aurora St., Gogebic Clinic, Ironwood
Tressel, Henry A.....Wakefield
Wacek, William H.....Grand View Hosp., Ironwood

Grand Traverse-Leelanau-Benzie Counties

Beall, John G.....118½ E. Front, Traverse City
Bolan, Ellis J.....Suttons Bay
Brownson, Kneale M.....116 Cass, Traverse City
Bushong, Benjamin B.....116 Cass, Traverse City
Duiker, Henry.....Box C, Traverse City
Ellis, Claude I.....Suttons Bay
Haberlein, Charles R.....123½ E. Front, Traverse City
Hall, James W.....212½ E. Front, Traverse City
Hamilton, Earl E.....156 E. Front, Traverse City
Huene, Nevin.....112 E. Front, Traverse City
Huston, Russell R.....Elk Rapids
Hyslop, Wm. T.....Box C, Traverse City
Jerome, Jerome T.....105 State Bank Bldg., Traverse City
Lemen, Charles E.....216½ E. Front, Traverse City
Lossman, R. T.....James Munson Hospital, Traverse City
Milliken, John.....Traverse City State Hosp., Traverse City
Nickels, M. M.....Traverse City State Hosp., Traverse City
Osterhagen, Harold F.....W. Bayshore Rd., Traverse City
Osterlin, Mark F.....201 State Bank Bldg., Traverse City
Pike, Donald G.....876 E. Front, Traverse City
Power, Frank H.....116 Cass, Traverse City
Salon, Dayton D.....108½ E. Front, Traverse City
Sheets, R. Philip.....Traverse City State Hosp., Traverse City
Sladek, E. F.....123 E. Front, Traverse City
Stone, Fordyce H.....Beulah
Swartz, Fred G.....301 State Bank Bldg., Travers City
Thacker, Fred R.....Frankfort
Thirlby, Edwin L.....116 Cass, Traverse City
Trautman, Frederick B.....436 E. State, Traverse City
Way, Lewis R.....436 E. State, Traverse City
Weitz, Harry L.....529 Monroe, Traverse City
Wieh, J. E.....Traverse City
Wilcox, Paul H.....Traverse City State Hosp., Traverse City
Wilhelm, E. C.....438 W. Front, Traverse City
Zielke, I. H.....212 E. Front, Traverse City
Zimmerman, Joseph G.....306 State Bank Bldg., Traverse City

Gratiot-Isabella-Clare Counties

Aldrich, Alfred L.....Ithaca
Barstow, Don K.....St. Louis
Barstow, W. E.....St. Louis
Becker, M. G.....Edmore
Bergin, Joseph H.....1437 Michigan, Alma
Budge, M. J.....Ithaca
Burch, L. J. (E).....Mt. Pleasant
Burt, C. E.....Ithaca
Chamberlain, R. W.....Mt. Pleasant
Davis, Lionel L.....Mt. Pleasant
Del Giorno, Thomas.....Shepard
Drake, Wilkie M. (L).....Breckenridge
DuBois, C. F.....Alma
Graham, B. J.....Alma
Hall, R. F.....1014 S. Lansing, Mt. Pleasant
Hammerberg, Kuno.....622 McEwen, Clare
Harrigan, W. L.....Mt. Pleasant
Hayes, Robert E.....Mt. Pleasant
Hersee, Wm. E.....Mt. Pleasant
Hobbs, A. D.....St. Louis
Hoogerland, C. L.....514 Iowa, Alma
Johnson, P. R.....Mt. Pleasant
Juhnke, L. W.....Mt. Pleasant
McArthur, Stewart C.....Clare
Miller, S. W.....Alma
Oldham, E. S.....Breckenridge
Palmer, Fred W.....P.O. Box 32, Mt. Pleasant
Rottschafer, J. L.....Alma
Silvert, Pasche P.....Vestaburg
Strange, Russell H.....630 S. College, Mt. Pleasant
Waggoner, R. L.....St. Louis
Wallman, C. Harry.....630 State St., Alma
Wickert, L. R.....Mt. Pleasant
Wilcox, Rex A.....Alma
Wilson, E. C.....Harrison
Wolfe, Kenneth P.....427 W. Superior, Alma

Hillsdale County

Bates, Morton P.....108 S. Manning, Hillsdale
Davis, L. A.....Camden
Day, Luther W.....Jonesville
Franke, Armin.....Hillsdale
Hanke, George R.....R.F.D., Osseo
Hodge, C. L.....Reading
Hughes, Henry F. (L).....Hillsdale
MacNeal, John A.....Manning St., Hillsdale
Martindale, E. A. (L).....Hillsdale
Mattson, H. F.....Hillsdale
Miller, Harry C. (L).....4760 Panorama Drive, San Diego 3, Calif.
Peterson, Carl A.....Hillsdale
Sawyer, Walter W.....61 N. Howell St., Hillsdale
Stein, Arthur.....Community Health Center, Hillsdale
Strom, Arthur W.....Hillsdale
Trapp, Donald.....Hillsdale
Wiggins, Ira W.....Jonesville

Houghton-Baraga-Keweenaw Counties

Aldrich, Addison B.....325 Harris, Houghton
Aldrich, Leonard C.....1609 E. Houghton, Houghton
Bourland, Phillip D. (L).....134½ Calumet Ave., Calumet
Brewington, G. F. (E).....Mohawk
Burke, John J.....Hubbell
Englehart, Charles.....Huron Bldg., Houghton
Gregg, W. T. S. (E).....Gerry's Landing, Cambridge 38, Mass.
Hayward, J. C.....Box 691, Lake Linden
Hillmer, Raymond E.....Painesdale
Hosking, F. S., Cdr. (M.C.) U.S.N.R., U.S.N.A.S. (M).....
381 Elrod Loop, Memphis, Tenn.
Janis, Anton J.....Quinsy Street, Hancock
King, William T.....Ahmeek
Kirton, Job R. W. (E).....1111 Calumet Ave., Calumet
Kolb, Frederick E.....128 Calumet Ave., Calumet
LaBine, Alfred.....1019 College Ave., Houghton
Lepisto, Victor E.....414 Hecla St., Laurium
Levin, Simon.....1209 College, Houghton

Manthei, W. A. ..... Lake Linden
Murphy, P. J. ..... Merchants & Miners Bank Bldg., Calumet
Quick, James B. (L) ..... 232 Iroquois, Laurium
Repola, K. L. (M) ..... 282 Jasper St., Ishpeming
Roche, Andrew M. ..... 221 Fifth Street, Calumet
Sloan, Paul S. ..... 214 Clark St., Houghton
Smith, Charles R. ..... Hancock
Stern, Isadore D. ..... 220 Hubbell, Houghton
Whitmore, Ray C. ..... Hancock
Wickliffe, John T. P. ..... 1167 Calumet Ave., Calumet
Winkler, Henry J. ..... L'Anse

Huron County

Dixon, Ralph C. ..... Pigeon
Gettel, Roy R. ..... Bad Axe
Herrington, Charles I. ..... Bad Axe
Herrington, Willet J. ..... Bad Axe
Monroe, Duncan J. (L) ..... Elkton
Oakes, C. W. ..... Harbor Beach
Ritsema, John ..... Sebewaing
Scheurer, Clare A. ..... Pigeon
Sorensen, Maurice G. ..... Kinde
Steinhardt, Edward E. ..... Elkton
Strempek, W. F. ..... Pigeon
Turner, Phillip R. ..... Harbor Beach
Weiss, Arno W. ..... Bad Axe

Ingham County

Alexander, Reuben G. ..... 301 Seymour, Lansing
Altland, J. K. ..... Michigan Dept. of Health, Lansing
Asselin, David C. ..... 503 American State Bank Bldg., Lansing
Badgley, W. O. ..... 624 N. Capitol Ave., Lansing
Baker, Arthur G. ..... Michigan Dept. of Health, Lansing
Bartholomew, Henry S. (R) ..... Harbor Beach
Bates, R. C. (A) ..... 1820 E. Michigan Ave., Lansing
Bauer, Theodore I. ..... 808 Olds Tower, Lansing
Behen, William C. ..... 535 S. Capitol Ave., Lansing
Bellinger, E. G. (L) ..... 114 W. Lenawee, Lansing
Bevez, Frank L. ..... 2806 N. East St., Lansing
Black, Charles E. ..... 529 W. Grand River, Williamston
Black, Gertrude ..... 529 W. Grand River Ave., Williamston
Bowersox, Robert J. ..... 108 Division St., East Lansing
Bradford, C. W. ..... 419 S. Walnut, Lansing
Breakey, Robert S. ..... 1211 Bank of Lansing Bldg., Lansing
Briede, Paul C. ..... St. Lawrence Hospital, Lansing
Brown, Fred W., Jr. ..... 536 Tussing Bldg., Lansing
Brubaker, Earl ..... 1406 Bank of Lansing Bldg., Lansing
Brucker, Karl B. ..... 122 W. Hillsdale, Lansing
Burhans, R. A. ..... 808 Olds Tower, Lansing 8
Calomeni, Anthony D. ..... 309 Seymour, Lansing
Carr, Earl I. ..... 300 W. Ottawa, Lansing
Cheney, Wm. D. ..... 412 LaSalle Blvd., Lansing
Christian, L. G. ..... 108 E. St. Joseph, Lansing
Clark, William E. ..... 136 W. Ash St., Mason
Clarke, Emilie A. ..... Div. of Lab., Mich. Dept. of Health, Lansing
Clinton, George ..... 136 W. Ash St., Mason
Cook, R. J. ..... 2601 S. Cedar St., Lansing
Cope, H. E. ..... Michigan Dept. of Health, Lansing
Corneliuson, Goldie B. ..... Michigan Dept. of Health, Lansing
Cowan, J. A. ..... 825 Touraine, East Lansing
Cross, Frank S. ..... 426 W. Ottawa, Lansing
Cummings, G. D. ..... Michigan Dept. of Health, Lansing
Darling, L. H. ..... 115 W. Hillsdale, Lansing
Dean, Carleton ..... 458 Hollister Bldg., Lansing
De Kleine, William ..... 301 Seymour St., Lansing
DeVries, C. F. ..... 320 Townsend, Lansing
Doyle, C. P. (E) ..... 1408 Bank of Lansing Bldg., Lansing
Drolett, Donald J. ..... 901 Prudden Bldg., Lansing
Drolett, Fred J. ..... 990 Prudden Bldg., Lansing
Drolett, Lawrence A. ..... 903 Prudden Bldg., Lansing
Dunn, F. M. ..... 301 Seymour, Lansing
Ellis, B. W. (R) ..... West Olive
Ellis, C. W. (L) ..... West Olive
Feeney, Kenneth J. ..... 1908 Olds Tower, Lansing 8
Folkers, Leonard M. ..... 911 Rosewood, East Lansing
Fortino, S. P. ..... 502 Bauch Bldg., Lansing
Fosget, Wilbur W. ..... 303 Bauch Bldg., Lansing
Foust, E. H. ..... 428 W. Allegan, Lansing
French, Horace L. ..... 301 Seymour, Lansing
Gardner, C. B. ..... 320 Townsend St., Lansing
Garlinghouse, A. John ..... 215 N. Walnut, Lansing
Goldner, Roy E. ..... 1318½ S. Washington, Lansing
Hackman, Pearl ..... Chinle Clinic, Chinle, Ariz.
Harris, Herbert W. ..... 301 Seymour, Lansing
Harrison, W. H. ..... 834 W. St. Joseph, Lansing
Harrold, J. F. ..... 420 W. Ottawa, Lansing 15
Hart, L. C. ..... 119 W. Lenawee, Lansing
Hayford, W. D. ..... 62 W. Wentworth, Minneapolis, Minnesota
Heald, G. H. ..... 234 Michigan Ave., East Lansing
Heckert, Frank B. ..... 1105 Bank of Lansing Bldg., Lansing
Heckert, J. K. ..... 1105 Bank of Lansing Bldg., Lansing
Henry, L. L. ..... 326 Townsend, Lansing
Hersey, E. F. ..... Box 606, East Lansing
Hersey, M. S. ..... Box 606, East Lansing
Heustis, Albert E. ..... Mich. Dept. of Health, Dewitt Road, Lansing
Himmelberger, R. J. ..... 320 Townsend, Lansing
Hockman, T. A. ..... 108 E. St. Joseph, Lansing
Hodges, Kenneth P. ..... 1116 Olds Tower, Lansing
Holland, Charles F. ..... 166 Orchard St., East Lansing
Huggett, Clare C. ..... 126 W. Grand River, Lansing
Hurth, M. S. ..... 1717 Jerome, Lansing
Isbister, J. L. ..... Michigan Dept. of Health, DeWitt Road, Lansing
Jacob, S. Sprigg ..... 1044 Wildwood Drive, East Lansing
Johnson, H. T. ..... 300 W. Ottawa St., Lansing
Johnson, K. H. ..... 1116 Olds Tower,... Lansing
Jones, Francis, Jr. ..... 716 Olds Tower Bldg., Lansing
June, R. C. ..... Michigan Dept. of Health, Lansing
Kahn, David ..... 401 American State Bank Bldg., Lansing
Keim, Cameron ..... 301 Seymour, Lansing
Kent, Edith Hall ..... 311 S. Pine, Lansing
Kent, Herbert K. ..... 311 S. Pine, Lansing
Kenyon, Fanny H. ..... Michigan Dept. of Health, Lansing
Klunzinger, Willard R. ..... 420 W. Ottawa, Lansing
Kraft, L. C. ..... Leslie
Landy, G. R. ..... 226 S. Walnut, Lansing
Lanting, Helen E. ..... 611 Ardson, East Lansing
Lanting, Roelof ..... 207 City Hall, Lansing
Laughead, Charles ..... 108 E. St. Joseph, Lansing
Lauzun, Virginia ..... 309 W. Main, Lansing
LeDuc, Don M. ..... 310 Townsend St., Lansing
Leeder, Fred S. ..... Mich. Dept. of Health, Lansing
LeVett, Harry L. ..... 1317 E. Michigan, Lansing
Loree, Maurice C. ..... 120 W. Hillsdale, Lansing
Lucas, T. H. ..... 426 W. Ottawa, Lansing
Ludlum, L. C. ..... 1126 W. Saginaw St., Lansing
Martin, Wayne O. ..... 1017 Cleo, Lansing
McConnell, E. G. (R) ..... 212 Leslie.... St., Lansing
McCorvie, C. Ray ..... 129 East Grand River, East Lansing
McCoy, Earl M. (R) ..... Grand Ledge
McCrumb, R. R. ..... 930 N. Washington, Lansing
McElmurry, Leland R. ..... 209 N. Walnut, Lansing
McGillicuddy, Oliver B. ..... 1816 Olds Tower, Lansing
McGillicuddy, R. J. ..... 300 W. Ottawa, Lansing 15
McIntyre, J. E. ..... 1101 S. Washington Ave., Lansing
McNamara, B. E. ..... 326 Townsend, Lansing
McNamara, William E. ..... 326 Townsend, Lansing
Meade, Robert J. ..... 1023-25 East Michigan Ave., Lansing
Meade, William H. ..... 1023 E. Michigan, Lansing
Mercer, W. E. ..... 304 Evergreen, East Lansing
Meyer, Hugh R. (R) ..... 511 N. Jenison, Lansing
Monfort, Robert ..... Health Center, MSC, East Lansing
Morrow, R. J. ..... 409 W. Ottawa, Lansing
Ochsner, P. J. ..... Fisher Body Plant, Lansing
Parker, Earl E. ..... Leslie
Pinkham, R. A. ..... 535 N. Capitol Ave., Lansing
Place, Edwin H. ..... Oldsmobile Division, Lansing
Pomeroy, Richard W. ..... 420 W. Ottawa St., Lansing
Ponton, Joseph ..... 117 E. Oak St., Mason
Poppen, C. J. ..... Mich. Dept. of Health, Lansing
Potter, Earl C. ..... 122 W. Hillsdale, Lansing
Prall, H. J. ..... 505 Bauch Bldg., Lansing
Price, Florence ..... 4341 W. Delhi, Holt
Randall, O. M. ..... 702 American State Bank Bldg., Lansing
Rector, Frank L. ..... 428 Wildwood, Jackson
Reynolds, E. E. ..... 153 E. Grand River Ave., Williamston
Richards, F. D. ..... DeWitt
Richardson, M. L. ..... Sparrow Hospital, Lansing
Robson, Edmund J. ..... 215 N. Walnut, Lansing
Rozan, J. S. ..... 511 Bank of Lansing Bldg., Lansing
Rozan, M. M. ..... 512 Olds Tower, Lansing
Ruhmkorff, R. H. ..... Mich. State Col. Health Center, East Lansing
Russell, Claude V. (R) ..... Northport
Rutledge, Samuel ..... 309 Seymour, Lansing
Sander, J. F. ..... Cherry Hill Farm, Okemos
Scheidt, R. Rudolph ..... 126 W. Grand River Ave., Lansing 6
Schoff, Charles ..... 129 E. Grand River, Williamston
Schultz, Arthur E. ..... 119 E. Grand River Ave., East Lansing
Seger, F. L. (L) ..... 1035 Cherry St. NE, St. Petersburg, Florida
Sharp, Mahlon ..... 606 W. Shiawassee St., Lansing
Shaw, Milton ..... 320 Townsend, Lansing
Sherman, G. A. ..... 112 W. Hillsdale, Lansing
Sichler, Harper G. ..... 301 Seymour, Lansing
Silverman, Irving E. ..... 313 Tussing Bldg., Lansing
Smith, Anthony V. ..... 116 W. Sycamore St., Mason
Snyder, LeMoyne ..... 705 American State Bank Bldg., Lansing
Snyder, Ruth E. ..... 234 W. Michigan, East Lansing
Spagnuolo, A. J. ..... 326 Townsend Ave., Lansing
Spencer, Perry ..... 320 Townsend, Lansing
Stanka, Andrew G. ..... Grand Ledge
Stanley, Arthur L. ..... 223 Cowley, East Lansing
Steiner, A. A. ..... 416 Tussing Bldg., Lansing
Steiner, S. D. ..... Oldsmobile Division, General Motors Corp., Lansing
Stiles, Frank ..... 2012 Olds Tower, Lansing
Strauss, P. C. ..... 408 American State Bank Bldg., Lansing
Stringer, C. J. ..... Ingham County Sanatorium, Lansing
Swartz, F. C. ..... 215 N. Walnut St., Lansing
Tamblyn, F. W. ..... 333 Seymour, Lansing
Toothaker, K. W. ..... 320 Townsend, Lansing
Towne, Lawrence C. ..... 300 W. Ottawa, Lansing
Trescott, Robert F. ..... 716 Olds Tower, Lansing
Trimby, Robert H. ..... 122 W. Hillsdale, Lansing
Troost, F. L. ..... 4341 W. Delhi, Holt

VanderSlice, E. R. (L)....530 N. Butler St., Lansing
VanderZalm, T. P....701 S. Capital Ave., Lansing
Wadley, Ralph....333 Seymour, Lansing
Walker, Leo W...Dept. of Pathology, St. Lawrence Hospital, Lansing
Webb, Roy O....2176 Hamilton Road, Box 3, Okemos
Wellman, John M....301 Seymour Ave., Lansing
Wilensky, Thomas....301 Seymour, Lansing
Wiley, Harold W.....Lansing Reg. Blood Ctr., 137 N. Larch, Lansing
Willson, Howard S....704 Olds Tower, Lansing
Wilson, Harry A....703 S. Capitol, Lansing
Worthington, Ralph....303 Tussing Bldg., Lansing

Ionia-Montcalm Counties

Anderson, Donald H....Portland
Bird, Wm. L....Greenville
Bracey, L. E. (L)....Sheridan
Bunce, E. P....Trufant
Bunce, Leo. W....Trufant
Cook, George H....Ionia State Hospital, Ionia
Cox, T. Jefferson....Ionia
Dunkin, Lloyd S....Greenville
Fleming, J. C....Pewamo
Fox, Harold M....Portland
Freiswyk, Melvin J....Belding
Geib, O. P....Carson City
Glerum, John B....Greenville
Hansen, Carl M....Stanton
Hansen, M. M....Greenville
Haskell, Robert H....Wayne Co. Training School, Northville
Hoffs, M. A....Lake Odessa
Hollard, A. E....Belding
House, Glenn W....602 W. Orange, Greenville
Kelsey, L. E....Lakeview
Kopchick, Joseph....Muir
Lilly, Isaac S....Stanton
McCann, John J....Ionia
Marston, L. L....Lakeview
Peabody, C. H. (L)....Lake Odessa
Reid, Harold E....Stanton
Rice, Robert E....Greenville
Robertson, Perry C....Ionia State Hospital, Ionia
Slagh, Milton E....Saranac
Snider, J. D....Ionia
Socha, Edmund S....Ionia
Swift, E. R. (L)....Lakeview
Tannheimer, John F....Ionia
VanLoo, J. A....422 S. Pleasant, Belding
Weaver, Harry B....Greenville

Jackson County

Abraham, A. O....Hudson
Adams, Ellis W....517 Wildwood, Jackson
Ahronheim, J. H....1410 Greenwood, Jackson
Anderson, W. B....404 Carter Bldg., Jackson
Alter, R. H....511 Wildwood, Jackson
Appel, Saul....510 Dwight Bldg., Jackson
Baker, George M....Parma
Bartholic, Frank W....Homer
Beckwith, Sidney A....Stockbridge
Bindshedler, Buell S....704 Reynolds Bldg., Jackson
Brashares, Z. A....Brooklyn
Bullen, G. Rex....418 Third, Jackson
Clarke, Corwin S....605 Dwight Bldg., Jackson
Cochrane, Wayne A. (L)....511 Wildwood, Jackson
Cooley, Charles W....Mercy Hospital, Jackson
Cooley, Randall M....141 East Robinson, Jackson
Corley, Cecil....1201 National Bank Bldg., Jackson
Corley, Ennis H....1211 W. Franklin St., Jackson
Cox, Ferdinand (L)....434 Wildwood Ave., Jackson
Culver, Guy D....Stockbridge
DeMay, Cuthbert E....403 E. Michigan, Jackson
DeMay, John D....403 E. Michigan, Jackson
Deming, Richard C....517 Wildwood, Jackson
Dengler, Charles R....504 Third St., Jackson
Dickman, Harry M....120 N. Michigan, Hudson
Douglas, E. W....4000 Cooper, Jackson
Edmonds, John M....Dharan, Saudi Arabia
Enders, W. H. (L)....1102 National Bank Bldg., Jackson
Filip, H. K....755 W. Michigan Ave., Jackson
Finch, Russell L....4000 Cooper, Jackson
Finton, Robert E....290 W. Michigan, Jackson
Finton, Walter L....290 W. Michigan Ave., Jackson
Foust, W. L....Grass Lake
Gibson, Frank J. (L).....2056 Second Avenue N., St. Petersburg, Fla.
Greenbaum, Harry....1203 Greenwood, Jackson
Growt, Bowers H....Addison
Habenicht, Hilda....910 Reynolds Bldg., Jackson
Hackett, Thomas E....401 Carter Bldg., Jackson
Hackett, Thomas L....401 Carter Bldg., Jackson
Hanft, Cyril F....Springport
Hanna, Roger J....1204 Fourth St., Jackson
Hardie, George C....290 W. Michigan, Jackson
Harris, Lester J. (E)....604 W. Washington, Jackson
Hicks, Glenn C. (L)....615 Dwight Bldg., Jackson
Holst, John B....1023 Francis St., Jackson
Holstein, Arthur P....214 Ann Arbor St., Manchester
Huebner, R. J....Addison
Huntley, W. B....Hudson
Joerin, W. A....734 Griswold, Jackson
Keefer, A. H....Concord
Kempton, George....290 W. Michigan, Jackson
Kudner, Don F....435 Wildwood, Jackson
Lake, Edward....612 First Street, Jackson
Landron, Daniel....Michigan Center
Leahy, Edward O....1205 National Bank Bldg., Jackson
Lenz, Charles R....405 First Street, Jackson
Leonard, Clyde A....1401 Jackson City Bank Bldg., Jackson
Lewis, E. F....901 Reynolds Bldg., Jackson
Linden, V. E....605 Dwight Bldg., Jackson
Ludwick, J. E....326 Cortland, Jackson
McGarvey, W. E....802 City Bank Bldg., Jackson
McLaughlin, M. J....502 W. Michigan, Jackson
McLauthlin, Herbert B....439 Wildwood Ave., Jackson
Meads, Jason B....1406 City Bank Bldg., Jackson
Miller, Jack L....519 North East Ave., Jackson
Miller, Samuel L....601 Reynolds Bldg., Jackson
Munro, Colin D. (E)....806 Reynolds Bldg., Jackson
Munro, James E....144 W. Pearl Street, Jackson
Munro, Nathan D....806 Reynolds Bldg., Jackson
Murphy, Bernard M....1010 E. Michigan Ave., Jackson
Newton, Ray E....910 Reynolds Bldg., Jackson
O'Meara, James J....1508 Reynolds Bldg., Jackson
Otis, Grant L....1405 National Bank Bldg., Jackson
Payne, Andrew K....Foote Hospital, Jackson
Porter, Horace W....505 Wildwood Ave., Jackson
Pray, Frank F....310 Steward Ave., Jackson
Pray, G. R. (E)....404 S. Jackson, Jackson
Ransom, F. G....2534 Francis St., Jackson
Ries, Richard G....290 W. Michigan Ave., Jackson
Riley, Philip A....500 S. Jackson St., Jackson
Sargent, Leland E....424 W. Michigan, Jackson
Sautter, W. A....Horton
Scott, John A....432 W. Michigan Ave., Jackson
Shaeffer, Arthur M....290 W. Michigan Ave., Jackson
Shaeffer, L. Dale....290 W. Michigan Ave., Jackson
Sill, Henry W....290 W. Michigan, Jackson
Sirhal, Alfred M....Brooklyn
Smith, Dean W....500 W. Michigan, Jackson
Smith, Erma....Cushing V.A. Hospital, Framingham, Mass.
Southwick, W. A. (A)....362 E. Main St., Springport
Stewart, L. L., Sr. (E)....308 Edgewood, Jackson
Stewart, L. L., Jr....290 W. Michigan Ave., Jackson
Stolberg, Carl A....517 Wildwood Ave., Jackson
Stone, Ethon L....143 N. Jackson, Jackson
Sugar, Samuel....509 Reynolds Building, Jackson
Susskind, Myron V....410 S. West Ave., Jackson
Tate, Cecil E....1315 Francis St., Jackson
Taylor, Ross V....517 Wildwood, Jackson
Thayer, E. A....1104 National Bank Bldg., Jackson
Thalner, L. F....609 West Michigan Ave., Jackson
Thompson, Tom....290 W. Michigan, Jackson
Torwick, E. T....501 Dwight Bldg., Jackson
Townsend, J. W....108 Hague, Vandercook Lake, Jackson
Van Schoick, Frank....419 W. High Street, Jackson
Van Schoick, John D....Hanover
Van Wagnen, Frederick I....434 Wildwood Ave., Jackson
Vivirski, Edward E....603 South Elm St., Jackson
Wallace, Warren S....816 Second St., Jackson
Wholihan, John W....102 Lydia Street, Jackson
Wickham, Woodward A....420 W. Michigan, Jackson
Wilson, Norman D. (L)....1107 Reynolds Bldg., Jackson
Winter, George E. (E)....420 Rogers Building, Jackson

Kalamazoo County

Aach, Hugo....1318 American Nat. Bank Bldg., Kalamazoo
Alexander, C. A....118 W. North, Kalamazoo
Andersen, Glenn C....Kalamazoo State Hospital, Kalamazoo
Andrews, Sherman E....224 E. Cedar St., Kalamazoo
Appel, B. A....310 Bronson Medical Center, Kalamazoo
Appel, William....310 Bronson Medical Center, Kalamazoo
Armstrong, Robert J....605 Hanselman Bldg., Kalamazoo
Banner, Lawrence R....507 S. Burdick St., Kalamazoo
Barak, Herbert G....224 McNair Bldg., Kalamazoo
Barnabee, James W. (L)....503 S. Burdick, Kalamazoo
Barrows, Winona M....Pinecrest San., Oshtemo
Barry, M. Leroy....Kalamazoo State Hospital, Kalamazoo
Behan, Gerald W....Galesburg
Benjamin, Margaret H....2217 Parchmount, Kalamazoo
Bennett, Charles L....252 E. Lovell Street., Kalamazoo
Bennett, Keith F....252 E. Lovell, Kalamazoo
Betz, Elden G....216 Bronson Medical Center, Kalamazoo
Bilodeau, C. C....207 McNair Bldg., Kalamazoo
Birch, W. G....212 Bronson Med. Center, Kalamazoo
Bodmer, Harvey C....403 W. Kalamazoo St., Kalamazoo

Borgman, Wallace....723 W. South St., Kalamazoo
Boys, Charles E....420 John St., Kalamazoo
Breneman, James C....Galesburg
Brown, Irmel W....306 Kalamazoo Nat. Bank Bldg., Kalamazoo
Burbidge, Earl L....Upjohn Co., 301 Henrietta St., Kalamazoo
Burrell, R. B....907 American Nat. Bank Bldg., Kalamazoo
Chrest, Clarence P....458 W. South St., Kalamazoo
Cobb, Horace R....305 Pythian Bldg., Kalamazoo
Conrad, Maynard M....252 E. Lovell St., Kalamazoo
Cook, Ralph G....222 McNair Bldg., Kalamazoo
Cooper, Paul F....252 E. Lovell St., Kalamazoo
Crane, Warren B....420 S. Rose St., Kalamazoo
Crawford, Kenneth L....612 Douglas Ave., Kalamazoo
Creager, Ray O....823 Wheaton, Kalamazoo
Cretsinger, Francis C....224 E. Cedar St., Kalamazoo
Currier, R. K....6646 Portage St., Kalamazoo
Dahlstrom, Doris E....723 S. Westnedge Ave., Kalamazoo
Dana, Robert L....1359 Portage St., Kalamazoo
DeGroat, Albert F....458 W. South St., Kalamazoo
Delbert, Stewart G....530 W. Lovell St., Kalamazoo
Dew, Robert R....252 E. Lovell, Kalamazoo
DeWitt, Norman L....802 Hanselman Bldg., Kalamazoo
Doezema, E. R. (A)....316 Bronson Medical Center, Kalamazoo
Dowd, B. J....420 John St., Kalamazoo
Doyle, Frederick M....1001 American Nat. Bank Bldg., Kalamazoo
Estill, Don V....414 W. Patterson St., Kalamazoo
Fast, R. B....1410 American Nat. Bank Bldg., Kalamazoo
Fath, August F....907 American Nat. Bank Bldg., Kalamazoo
Finton, Max A....252 E. Lovell, Kalamazoo
Fopeano, John V....815 American Nat. Bank Bldg., Kalamazoo
Fulkerson, C. B. (L)....402 Kalamazoo Nat. Bank Bldg., Kalamazoo
Fuller, Paul M....419 S. Burdick St., Kalamazoo
Gerstner, Louis W....420 John St., Kalamazoo
Gilding, Joseph P....114 W. Washington, Vicksburg
Goodhue, Lolita....915 American Nat. Bank Bldg., Kalamazoo
Grant, Frederick E. (E)....214 Douglas Ave., Kalamazoo
Green, William L....810 American Nat. Bank Bldg., Kalamazoo
Gregg, U. Sherman....334 S. Park St., Kalamazoo
Grekin, R. H....1310 American Nat. Bank Bldg., Kalamazoo
Hammer, J. M....100 Maple St., Parchment
Hanson, Curtis M....217 Bronson Medical Center, Kalamazoo
Hayner, Russell A....1043 E. Cork St., Kalamazoo
Heersma, H. Sidney....252 E. Lovell, Kalamazoo
Herbert, Walter N....422 John St., Kalamazoo
Hildreth, Rose C....458 W. South St., Kalamazoo
Hodgman, Albert B....612 Douglas, Kalamazoo
Hoebeke, W. G....212 Bronson Medical Center, Kalamazoo
Holder, Charles O....Kalamazoo State Hospital, Kalamazoo
Howard, R. Grant....Borgess Hospital, Suite 583, Kalamazoo
Howard, Willard H....1602 Gull Road, Kalamazoo
Hubbell, R. J....315 Bronson Med. Center, 252 E. Lovell St., Kalamazoo
Huyser, William C....427 S. Burdick St., Kalamazoo
Irwin, William D....805 Hanselman Bldg., Kalamazoo
Jackson, Howard C....252 E. Lovell St., Rm. 220, Kalamazoo
Jennings, Wesley O....420 John St., Kalamazoo
Kavanaugh, Wm. R....612 Douglas, Kalamazoo
Kilgore, Robert N....252 E. Lovell St., Kalamazoo
Klerk, William J....224 E. Cedar St., Kalamazoo
Koestner, Paul A....1303 Portage, Kalamazoo
Lambert, Rudolph H....Fairmount Hospital, Kalamazoo
Lavender, Howard C....252 E. Lovell St., Kalamazoo
Lawrence, James O....301 Henrietta St., Kalamazoo
Light, Richard U....828 W. South St., Kalamazoo
Light, S. Rudolph....503 American Nat. Bank Bldg., Kalamazoo
Littig, John D....815 American Nat. Bank Bldg., Kalamazoo
Locklin, W. K....1410 American Nat'l Bank Bldg., Kalamazoo
Loynd, J. W....1010 American Nat. Bank Bldg., Kalamazoo
MacDonald, Marshall A....319 Bronson Medical Center, Kalamazoo
MacGregor, J. R....100 Maple St., Parchment
Machin, Harold A....420 John St., Kalamazoo
Malone, James G....420 John St., Kalamazoo
Margolis, Frederick J....909 American Nat. Bank Bldg., Kalamazoo
Marshall, Don....252 E. Lovell St., Kalamazoo
Marshall, William P....160 Edgemoor Avenue, Kalamazoo
Martens, Irvin J....252 E. Lovell St., Kalamazoo
McCarthy, Joseph S....1005 Oakland Dr., Kalamazoo
Moe, Carl R....316 Henrietta St., Kalamazoo
Morse, Wm. R....c/o Del Vista San., Plainwell
Morter, Roy A....Kalamazoo State Hospital, Kalamazoo
Nell, Edward R., Lt. Comdr. USNR (M)....NAS, Pensacola, Florida
Nibbelink, B....903 Hanselman Bldg., Kalamazoo
Patmos, Martin....306 Bronson Medical Center, Kalamazoo
Pearson, Edwin O....458 W. South St., Kalamazoo
Peelen, J. William....316 Henrietta St., Kalamazoo
Peelen, Matthew....320 Bronson Medical Center, Kalamazoo
Perry, Clifton W....1307 American Nat. Bank Bldg., Kalamazoo
Pier, C. T....91 Vale St., Battle Creek
Pratt, F. A. (L)....517 S. Rose St., Kalamazoo
Prentice, Hazel R....458 W. South St., Kalamazoo
Prothro, Winston B....241 W. South St., Kalamazoo
Pullon, Alton E....422 John St., Kalamazoo
Rasmussen, Leo B....Vicksburg
Rigterink, Gerald H....1110 American Nat. Bank Bldg., Kalamazoo
Rigterink, H. A. (L)....321 S. Burdick St., Kalamazoo
Roberts, Millard S....303 American Nat. Bank Bldg., Kalamazoo
Rockwell, Donald C....1418 American Nat. Bank Bldg., Kalamazoo
Ryan, Frederick C....507 S. Burdick, Kalamazoo
Sage, Edward D. (L)....127 S. Burdick, Kalamazoo
Scholten, D. J....522 S. Burdick, Kalamazoo
Scholten, Roger A....252 E. Lovell St., Kalamazoo
Scholten, William (R)....Kalamazoo State Hospital, Kalamazoo
Schrier, Clarence M....Kalamazoo State Hospital, Kalamazoo
Schrier, Paul G....317 Bronson Medical Center, Kalamazoo
Schrier, Thomas....Box 88, Comstock
Scott, William A....208 Bronson Medical Center, Kalamazoo
Shackleton, William E. (R)....420 S. Rose St., Kalamazoo
Shook, Ralph W....611 American Nat. Bank Bldg., Kalamazoo
Siemsen, W. J....252 Lovell, Room 316, Kalamazoo
Simpson, Bernard W....610 S. Burdick St., Kalamazoo
Sisk, Wilfred N....Upjohn Co., 301 Henrietta St., Kalamazoo
Slatmyer, Karel R....605 Hanselman Bldg., Kalamazoo
Smith, T. C....Kalamazoo State Hospital, Kalamazoo
Sofen, Morris B....603 Kalamazoo Nat. Bank Bldg., Kalamazoo
Southworth, Maynard N....Box 36, Schoolcraft
Stiller, Anthony F....Pinecrest San., Kalamazoo
Strylker, Homer H....Suite 583, Borges Hospital, Kalamazoo
Upjohn, E. G....Upjohn Co., 301 Henrietta St., Kalamazoo
Upjohn, Lawrence N....Upjohn Co., 301 Henrietta St., Kalamazoo
VanderVelde, Kenneth M...320 Bronson Medical Center, Kalamazoo
Verhage, Martin D....420 S. Rose St., Kalamazoo
Volderauer, John C....458 W. South St., Kalamazoo
Warnke, Robert D....252 E. Lovell, Kalamazoo
Westcott, Leo P....420 John St., Kalamazoo
Wilbur, E. P. (E)....438 W. South St., Kalamazoo
Williamson, Edwin M....315 Bronson Med., Center, Kalamazoo
Youngs, A. S. (E)....416 S. Burdick, Kalamazoo
Youngs, Cyril A....416 S. Burdick, Kalamazoo
Zolen, Margaret H....224 E. Cedar, Kalamazoo

Kent County

Adams, Frank A....526 Leonard St. N.W., Grand Rapids
Aitken, George T....Kendell Professional Bldg., Grand Rapids
Albers, G. Donald....Monument Square Bldg., Grand Rapids
Alfenito, Felix S....Medical Arts Bldg., Grand Rapids
Allen, R. V....1669 Plainfield N.E., Grand Rapids
Anderson, Karl A....Michigan Veteran Fac., Grand Rapids
Andre, Harvey M....201 Medical Arts Bldg., Grand Rapids
Avery, Noyes L....309 Kendall Professional Bldg., Grand Rapids
Baker, Abel J. (L)....Ashton Bldg., Grand Rapids
Baert, George H. (E)....218 Kendall Bldg., Grand Rapids
Ballard, Milner S....1516 Grand Rapids Nat. Bank, Grand Rapids
Balyeat, Gordon W....Blodgett Memorial Bldg., Grand Rapids
Beaton, James H....East Bldg., Grand Rapids
Beeman, Carl B....509 Kendall Professional Bldg., Grand Rapids
Beets, W. Clarence....Loraine Bldg., Grand Rapids
Bell, Charles M....Kendall Prof. Bldg., Grand Rapids
Benjamin, Howard G....514 Medical Arts Bldg., Grand Rapids
Benson, Roland R....St. Mary's Hospital, Grand Rapids
Bergsma, Stuart (A)....Luthiana East Punjab, India
Bettison, William L. (A)....Lamont
Beukema, Marenus J....6850 S. Division, Grand Rapids
Billings, Elton P. (L)....212 Kendall Bldg., Grand Rapids
Blackburn, Henry M....Metz Bldg., Grand Rapids
Bloxsom, Paul W....203 Loraine Bldg., Grand Rapids
Boelkins, Richard C....125 Fountain N.E., Grand Rapids
Boersma, Donald....Medical Arts Bldg., Grand Rapids
Boet, Frank A. (L)....849 Scribner N.W., Grand Rapids
Boet, John T....503 Loraine Bldg., Grand Rapids
Bond, George L. (L)....Rapid City
Bosch, Leon C....Medical Arts Bldg., Grand Rapids
Boyce, D. C....Metz Bldg., Grand Rapids
Brace, Fred C....1498 Lake Dr. S.E., Grand Rapids
Brayman, Charles W. (L)....Cedar Spring
Brink, J. Russell....308 Metz Bldg., Grand Rapids
Brook, Jacob D. (L)....Grandville
Brotherhood, James S....1749 Breton Rd. S.E., Grand Rapids
Browning, Eugene S....303 Keith Theatre Bldg., Grand Rapids
Buist, S. J....55 Sheldon S.E., Grand Rapids
Bull, Frank L....Sparta
Burleson, John S....531 Greenwood S.E., Grand Rapids
Burling, Wesley M....758 Michigan St. N.E., Grand Rapids
Burroughs, Frank M....11 Wilson, Grandville
Butler, Wm. J....324 Medical Arts Bldg., Grand Rapids
Byers, Earle J....410 Medical Arts Bldg., Grand Rapids
Byrd, Mary Lou....700 Kent Hills Dr. N.E., Grand Rapids
Campbell, Alexander M. (E)....Oakwood Manor, 345 Cherry St., S.E., Grand Rapids
Carpenter, Luther C....Metz Bldg., Grand Rapids
Cayce, William....Grand Rapids Nat. Bank, Grand Rapids
Chamberlain, Louis H. (L)....441 Crescent N.E., Grand Rapids
Chandler, Donald....719 Ashton Bldg., Grand Rapids
Clawson, Carroll K....1144 Madison S.E., Grand Rapirs
Claytor, Robert W....142 Michigan N.W., Grand Rapids
Colvin, Walter G....Loraine Bldg., Grand Rapids
Corbus, Burton R. (L)....Metz Bldg., Grand Rapids
Crane, Harold D....Medical Arts Bldg., Grand Rapids
Cronick, Anne B....124 Michigan N.E., Grand Rapids
Currier, F. P....626 Medical Arts Bldg., Grand Rapids
Dales, Ernest W., 1424 Grand Rapids Nat'l Bank Bldg., Grand Rapids
Damstra, Harold J....1115 Wealthy St. S.E., Grand Rapids
Davis, David B....403 Med. Arts Bldg., 26 Sheldon Ave. S.E., Grand Rapids
Dean, Alfred....26 Sheldon S.E., Grand Rapids
DeBoer, Guy W....220 Medical Arts Bldg., Grand Rapids
DeMaagd, Gerald....Rockford
DeMol, Richard J....1414 Eastern S.E., Grand Rapids

Denham, R. H.....Metz Bldg., Grand Rapids
DePree, Isla G.....Kendall Bldg., Grand Rapids
DePree, Joseph.....Blodgett Medical Bldg., Grand Rapids
Deurloo, Henry W.....3425 S. Division Ave., Godwin Heights, Grand Rapids
DeVel, Leon.....739 Plymouth S.E., Grand Rapids
DeVries, Daniel.....1414 Eastern S.E., Grand Rapids
Dewey, Kent A.....607 Medical Arts Bldg., Grand Rapids
DeYoung, Thies.....Sparta
Dick, Mark W.....1508 Grand Rapids Nat. Bank, Grand Rapids
Diskey, Donald.....634 Bridge N.W., Grand Rapids
Docter, Leubert L.....Medical Arts Bldg., Grand Rapids
Doran, Frank L.....Metz Bldg., Grand Rapids
Droste, James C.....72 Sheldon S.E., Grand Rapids
Du Bois, Wm. J. (L).....Kaleva
Ducey, Edward F.....St. Mary's Hospital, Grand Rapids
Dyer, David P.....62 Ransom N.E., Grand Rapids
Eaton, Robert M.....12 Burton S.E., Grand Rapids
Eggleston, H. R.....117 Page N.E., Grand Rapids
Ellis, M. E.....409 Division S., Grand Rapids
Fahlund, George T. R.....Medical Arts Bldg., Grand Rapids
Failing, John F.....502 Metz Bldg., Grand Rapids
Farber, Charles E.....408 Metz Bldg., Grand Rapids
Faust, Lawrence W.....425 Medical Arts Bldg., Grand Rapids
Fellows, Kenneth E.....Metz Bldg., Grand Rapids
Ferguson, James A.....72 Sheldon S.E., Grand Rapids
Ferguson, Lynn A.....72 Sheldon S.E., Grand Rapids
Ferguson, W. S. (R).....Route 1, Ludington
Ferrand, Louis G.....119 N. Monroe, Rockford
Fitts, Ralph L.....Metz Bldg., Grand Rapids
Flynn, J. Donald.....240 Kendall Prof. Bldg., 12-18 Monroe N.E., Grand Rapids
Fochtman, T. W.....Sparta
Foshee, J. Clinton.....Suite 602, Loraine Bldg., Grand Rapids
Fralick, E. Howard (M).....Blodgett Med. Bldg., Grand Rapids
Frantz, Charles H.....Blodgett Med. Bldg., Grand Rapids
Fuller, E. H.....702 Ashton Bldg., Grand Rapids
Fuller, W. J.....Medical Arts Bldg., Grand Rapids
Gadzikowski, I. T.....Sunshine Sanatorium, Grand Rapids
Gamm, Kenneth E.....East Bldg., Grand Rapids
Gibbs, Floyd F.....4327 Division Ave., Grand Rapids
Gillett, Frederick S. (M).....1810 Longshore Dr., Ann Arbor
Gosling, R. J. (M).....Birch Hill, Saskatchewan, Canada
Grant, Lee O.....420 Medical Arts Bldg., Grand Rapids
Grant, Lucile R.....Blodgett Med. Bldg., Grand Rapids
Grass, Edward J.....758 Cherry S.E., Grand Rapids
Gray, Fred B.....Medical Arts Bldg., Grand Rapids
Graybiel, George P.....Caledonia
Griffith, Lucian S.....Kendall Prof. Bldg., Grand Rapids
Haeck, William.....1414 Eastern S.E., Grand Rapids
Hagerman, D. B.....203 Medical Arts Bldg., Grand Rapids
Hayes, Lawrence W., Sr.....Howard City
Heetderks, Dewey R.....405 Medical Arts Bldg., Grand Rapids
Henry, James, Jr. (E).....38 Monroe Street N.W., Grand Rapids
Herrick, Ruth.....303 Medical Arts Bldg., Grand Rapids
Hill, A. Morgan.....310 E. Fulton, Grand Rapids
Hodgen, John T.....Blodgett Medical Bldg., Grand Rapids
Hoffs, Albertus J.....Medical Arts Building, Grand Rapids
Holcomb, J. Winslow.....1315 Grand Rapids Nat. Bank, Grand Rapids
Holdsworth, M. J.....Loraine Bldg., Grand Rapids
Holkeboer, Henry D.....1925 Eastern Ave. S.E., Grand Rapids
Hollander, Stephen.....1600 Grandville Ave., Grand Rapids
Hoogerhyde, Jack.....504 Loraine Bldg., Grand Rapids
Hufford, A. R.....260 Jefferson S.E., Grand Rapids
Humphreys, James C.....127 Fountain N.E., Grand Rapids
Hunderman, Edward.....538 Eastern Ave. S.E., Grand Rapids
Hyland, William A.....Metz Bldg., Grand Rapids
Ireland, H. D.....Sunshine Sanatorium, Grand Rapids
Jack, William W.....Blodgett Medical Bldg., Grand Rapids
Jameson, Fred M.....1521 Grand Rapids Nat. Bank, Grand Rapids
Jaracz, Walter J.....634 Bridge St. N.W., Grand Rapids
Jarvis, Charles.....1520 Plainfield N.E., Grand Rapids
Tellema, John F.....Medical Arts Bldg., Grand Rapids
Johnston, William L.....Metz Bldg., Grand Rapids
Jones, Horace C.....Blodgett Memorial Hosp., Grand Rapids
Kelly, Edward F.....Loraine Bldg., Grand Rapids
Kempter, Albert H.....1200 Lake Drive S.E., Grand Rapids
Kendall, Eugene L.....360 Division St. S., Grand Rapids
Klaus, C. D.....1498 Lake Drive S.E., Grand Rapids
Kniskern, Paul W.....421 Medical Arts Bldg., Grand Rapids
Kooistra, Henry P.....Medical Arts Bldg., Grand Rapids
Kreulen, Henry J.....2452 Godwin Ave., Grand Rapids
Kriekard, P. J. (L).....735 Leonard N.W., Grand Rapids
Kruse, Wm. T.....312 E. Fulton, Grand Rapids
Laird, Robert G.....509 Metz Bldg., Grand Rapids
Lamberts, Austin E.....68 Ransom Ave. N.E., Grand Rapids
Lanning, N. E.....1200 Madison S.E., Grand Rapids
Lentini, Joseph R.....518 Metz Bldg., Grand Rapids
Lieffers, Harry.....400-2 Medical Arts Bldg., Grand Rapids
Lillie, W. I.....Loraine Bldg., Grand Rapids
List, Carl F.....626 Medical Arts Bldg., Grand Rapids
Logie, James W.....6th Floor, Metz Bldg., Grand Rapids
MacDonell, James A.....619 Gladstone Ave. S.E., Grand Rapids
MacIntyre, Dugald.....456 Cherry S.E., Grand Rapids
Marsh, John P.....Ashton Bldg., Grand Rapids
Martinus, Martin.....525 Overbrook Lane S.E., Grand Rapids
Maynard, Mason S.....1144 Madison S.E., Grand Rapids
McCormick, John K.....1371 N. Plainfield Ave. N.E., Grand Rapids
McDougal, Wm. J.....127 Fountain N.E., Grand Rapids
McDougall, Clarice.....310 E. Fulton St., Grand Rapids
McKay, O. D.....207 W. Main, Lowell
McKenna, Joseph L.....Medical Arts Bldg., Grand Rapids
McKinley, Leland M.....604 Loraine Bldg., Grand Rapids
Meade, Richard H., Jr.....Blodgett Medical Bldg., Grand Rapids
Meeuwsen, Bernard.....Medical Arts Bldg., Grand Rapids
Mehney, Gayle H.....Medical Arts Bldg., Grand Rapids
Miller, J. Duane.....6th Floor Metz Bldg., Grand Rapids
Miller, John J.....Marne
Mitchell, W. B.....Medical Arts Bldg., Grand Rapids
Moen, Cornetta G.....53 Lafayette S.E., Grand Rapids
Moleski, Joseph V.....Medical Arts Bldg., Grand Rapids
Moleski, Leo T.....528 Medical Arts Bldg., Grand Rapids
Moleski, Stanley L.....528 Medical Arts Bldg., Grand Rapids
Moll, Arthur M.....Powers Theater Bldg., Grand Rapids
Montgomery, John C.....Blodgett Medical Bldg., Grand Rapids
Mouw, Dirk.....1850 Division S., Grand Rapids
Mulder, G. Arthur.....68 Ransom N.E., Grand Rapids
Mulder, J. D.....Christian Hosp., 68th & Division Sts., Grand Rapids
Murphy, Miles J.....754 W. Fulton, Grand Rapids
Nanzig, Reinard P.....East Building, Grand Rapids
Nickel, Kenneth C.....Med. Arts Bldg., Grand Rapids
Noordewier, Albert (L).....1518 Grand Rapids Nat. Bank Bldg., Grand Rapids
Northouse, Peter B.....Medical Arts Bldg., Grand Rapids
Notier, Victor A.....Medical Arts Bldg., Grand Rapids
Oliver, Walter W.....318 Medical Arts Bldg., Grand Rapids
Osborn, Howard A.....531 Greenwood S.E., Grand Rapids
Paalman, Russell J.....1144 Madison Ave. S.E., Grand Rapids
Patterson, P. Wilfred.....2000 S. Division, Grand Rapids
Payne, C. Allen.....Blodgett Memorial Hosp., Grand Rapids
Pearson, Glenn A.....Med. Arts Bldg., Grand Rapids
Pedden, John R., Jr.....1144 Madison, Grand Rapids
Plekker, J. D.....6850 Division S., Grand Rapids
Posthuma, A. E.....Med. Arts Bldg., Grand Rapids
Posthuma, Millard M.....Med. Arts Bldg., Grand Rapids
Pott, A. L.....1011 E. Fulton, Grand Rapids
Pyle, Henry J.....513 Medical Arts Bldg., Grand Rapids
Ragsdale, L. V.....Butterworth Hospital, Grand Rapids
Ralph, L. Paul.....402 Metz Bldg., Grand Rapids
Rasmussen, R. A.....Blodgett Med. Bldg., Grand Rapids
Reames, Harold R.....310 Fulton East, Grand Rapids
Reed, Torrance.....Ashton Bldg., Grand Rapids
Reus, William F.....24 Burton S.E., Grand Rapids
Riekse, J. M.....1916 Division S., Grand Rapids
Rigterink, John W.....Metz Bldg., Grand Rapids
Riley, G. L.....1419 Coit N.E., Grand Rapids
Ringenberg, J. C.....Medical Arts Bldg., Grand Rapids
Robb, Charles S.....1144 Madison S.E., Grand Rapids
Robbert, J. H.....11 S. Wilson, Grandville
Roberts, Mortimer E. (E).....516 Medical Arts Bldg., Grand Rapids
Robinson, Harold C.....509 Medical Arts Bldg., Grand Rapids
Rodgers, William L.....616 Bridge N.W., Grand Rapids
Rosenzweig, Leonard.....East Bldg., Grand Rapids
Roth, Emil M.....55 Sheldon S.E., Grand Rapids
Ryan, John A.....Medical Arts Bldg., Grand Rapids
Sanders, J. F.....Medical Arts Bldg., Grand Rapids
Schaubel, Howard J.....Loraine Bldg., Grand Rapids
Schermerhorn, L. J.....Grand Rapids Nat. Bank Bldg., Grand Rapids
Schneider, G. R.....Blodgett Medical Bldg., Grand Rapids
Schnoor, E. W.....216 Medical Arts Bldg., Grand Rapids
Schnute, Louise F.....Grand Rapids Nat. Bank Bldg., Grand Rapids
Schuitema, Donald M.....Blodgett Medical Bldg., Grand Rapids
Scott, William B.....114½ Michigan N.W., Grand Rapids
Sculley, Raymond E.....126 Burton S.E., Grand Rapids
Sevensma, Elisha S. (L).....2114 Anderson Dr. S.E., Grand Rapids
Sevensma, Eugene S.....1317 Gr. Rap. Nat. Bk. Bldg., Grand Rapids
Sevey, Leon E.....400 Medical Arts Bldg., Grand Rapids
Shellman, Millard W.....Metz Bldg., Grand Rapids
Shepard, B. H.....Lowell
Sidell, Chester M.....312 Fulton Street S.E., Grand Rapids
Sidell, Richard H.....312 E. Fulton, Grand Rapids
Siebers, Bernard H.....1402 Madison Ave. S.E., Grand Rapids
Slemmons, Clyde C. (L).....Grand Rapids City Hall, Grand Rapids
Sluyter, J. S.....1034 Franklin S.E., Grand Rapids
Smith, A. B.....Metz Bldg., Grand Rapids
Smith, Edwin M.....201 Kendall Prof. Bldg., Grand Rapids
Smith, Ferris N.....Blodgett Medical Bldg., Grand Rapids
Smith, R. Earle.....709 Ashton Bldg., Grand Rapids
Smith, Robert B.....125 Fountain N.E., Grand Rapids
Snyder, Clarence H.....200 Medical Arts Bldg., Grand Rapids
Southwich, G. Howard.....55 Sheldon Ave. S.E., Grand Rapids
Steffensen, Wallace H.....Blodgett Medical Bldg., Grand Rapids
Stonehouse, G. G.....408 Medical Arts Bldg., Grand Rapids
Stover, Virgil E.....1719 Madison S.E., Grand Rapids
Stuart, Gerhardus J. (L).....Metz Bldg., Grand Rapids
Sugg, Cullen E.....303 E. Fulton, Grand Rapids
Sugiyama, Titsuo.....Loraine Bldg., Grand Rapids
Swenson, H. C.....Loraine Bldg., Grand Rapids
Ten Have, John.....806 Leonard N.W., Grand Rapids
Tesseine, Arthur J.....242 Jefferson Ave. S.E., Grand Rapids
Teusink, J. H.....Cedar Springs
Thompson, Athol B.....Blodgett Medical Bldg., Grand Rapids
Thompson, Edward C.....Medical Arts Bldg., Grand Rapids
Thompson, Frank D.....Blodgett Medical Bldg., Grand Rapids
Tidey, Marcus B.....456 Cherry S.E., Grand Rapids
Tiffany, Joseph C.....401 Metz Bldg., Grand Rapids
Torgerson, Wm. R.....Metz Bldg., Grand Rapids
Truog, C. P.....201 Metz Bldg., Grand Rapids
Uthoff, Carl W.....1520 Plainfield N.E., Grand Rapids
VanBelois, Harvard J.....522 Medical Arts Bldg., Grand Rapids
VanBree, R. S.....204 Loraine Bldg., Grand Rapids
Vanden Berg, Allison.....Medical Arts Bldg., Grand Rapids
VandenBerg, Henry J.....Blodgett Medical Bldg., Grand Rapids
VanderMeer, Ray.....Medical Arts Bldg., Grand Rapids
VanderPloeg, William H.....1209 Kalamazoo S.E., Grand Rapids
VanDuine, Henry J.....Medical Arts Bldg., Grand Rapids

VanNoord, Gelmer A.....6850 Division S., Grand Rapids
Van Pernis, Paul A.....Butterworth Hospital, Grand Rapids
Van Portfliet, Paul.....505 Medical Arts Bldg., Grand Rapids
Van Solkema, Andrew A.....953 E. Fulton, Grand Rapids
Van Solkema, Arthur.....64 State W., Grandville
Van't Hof, Albert.....Metz Bldg., Grand Rapids
Van Woerkom, Daniel.....750 W. Leonard, Grand Rapids
Van Zwalenburg, Benjamin R.....Metz Bldg., Grand Rapids
Veldman, Harold E.....1418 Plainfield Ave., Grand Rapids
Venema, Jay R.....Medical Arts Bldg., Grand Rapids
VerMeulen, John.....2400 Wyoming Park, Grand Rapids
Verwys, A. L. Hubert.....815 Alger S.E., Grand Rapids
Vining, Keats K., Jr.....Medical Arts Bldg., Grand Rapids
Vis, William R.....412 Medical Arts Bldg., Grand Rapids
Vyn, Jay D.....3329 Coit N.E., Grand Rapids
Webber, Jerome.....310 E. Fulton St., Grand Rapids
Weller, Keith E.....1200 Lake Dr. S.E., Grand Rapids
Wells, Merrill.....407 Metz Bldg., Grand Rapids
Wenger, Aaron V.....302 Loraine Bldg., Grand Rapids
Wenger, John N.....Coopersville
Whalen, John M. (M).....Post Surg., Marine Barr., Camp Pendleton, Oceanside, Calif.
Whinery, J. B. (E).....1403 Green Cove Rd., Winter Park, Fla.
Whinery, J. F.....1403 Green Cove Rd., Winter Park, Fla.
Wiarda, Roy J. (M).....1553 Plainfield, Grand Rapids
Willits, Paul W.....Blodgett Medical Bldg., Grand Rapids
Wilson, William E. (R).....37 Prospect Ave. N.E., Grand Rapids
Winter, G. E.....1967 Godfrey S.W., Grand Rapids
Wright, Thomas B.....1571 Wealthy S.E., Grand Rapids
Wurz, John F.....Medical Arts Bldg., Grand Rapids
Yegge, J. P.....Kent City

Lapeer County

Biggs, Robert.....North Branch
Bishop, G. Clare.....Almont
Burley, David H. (E).....Almont
Chapin, Clarence D.....Columbiaville
Dorland, Clarke.....Clay Street, Lapeer
Doty, James R.....Clay Street, Lapeer
Lass, E. H.....Lapeer
McBride, John R.....915 Liberty St., Lapeer
Merz, Henry G. (E).....Lapeer
O'Brien, Daniel J.....Nepessig St., Lapeer
Rehn, Adolph T.....Asst. Med. Supt., Lapeer State Home, Lapeer
Smith, Glenn L.....131 East Third St., Imlay City
Thomas, J. Orville (E).....North Branch
Zemmer, Harry B.....Clay Street, Lapeer
Zolliker, Carl R.....240 Main St., Imlay City

Lenawee County

Allen, Russell A.....231 N. Main St., Adrian
Benz, Carl A.....150 Toledo St., Adrian
Blair, Thomas H.....National Bank Bldg., Adrian
Blanchard, Lowell E.....301½ W. Main, Hudson
Blanden, Merwin R.....Ford Bldg., Tecumseh
Boyd, James W.....Clayton
Claxton, W. T.....136 Chicago St., Britton
Cogar, C. W.....317 S. Huron, Ypsilanti
Colbath, W. E.....1027 Seneca St., Fairfield, Adrian
Dustin, Richard E.....309 N. Union St., Tecumseh
Eddy, H. R. C.....Adrian
Hamilton, John D.....121 E. Maumee, Adrian
Hammel, H. H.....2 S. Pearl, Tecumseh
Hardy, P. B. (L).....202 W. Chicago Blvd., Tecumseh
Harrison, R. E., 1st Lt. (M).....U.S.A.F. (MC). Base Hospital F. E. Warren, A.F.B., Wyoming
Heffron, Charles (M).....909 E. Butler, Adrian
Heffron, Howard H.....231 N. Main St., Adrian
Helzerman, Ralph F.....1145 Ottawa St., Tecumseh
Hewes, William H.....146 E. Maumee St., Adrian
Hinshaw, Warren V.....139½ N. Main St., Adrian
Hornsby, W. B.....132 E. Chicago, Clinton
Hunter, T. B.....201 National Bank Bldg., Adrian
Isley, Homer E.....115 W. Adrian St., Blissfield
Loveland, Horace H. (E).....220 Chicago Blvd., Tecumseh
Marsh, R. G. B.....610 W. Logan, Tecumseh
Mast, Wesley H.....106 N. Democrat St., Tecumseh
Miller, Perry L.....310 E. Maumee St., Adrian
Morden, Esli T.....109 E. Maumee St., Adrian
Parker, D. A.....635 W. Maumee St., Adrian
Pasternacki, Arthur S.....206 East Front St., Adrian
Patmos, Bernard.....127½ E. Maumee St., Adrian
Purfield, William P.....545 W. Main, Manchester
Raabe, E. C.....124 North St., Morenci
Rogers, John D.....146 Toledo St., Adrian
Sayre, Phillip P.....121 N. Main, Onsted
Spalding, I. L. (E).....Hudson
Stark, Emily S.....155 E. Maumee St., Adrian
Thompson, John R.....106 E. Chicago Blvd., Tecumseh
Tubbs, R. V.....Blissfield
VanDusen, Chad A.....R.F.D. No. 2, Blissfield
Whitehouse, Keith.....118 W. Main St., Morenci
Wynn, G. H.....147 E. Church St., Adrian

Livingston County

Barton, Thomas A.....Howell
Clarke, Niles A.....624 Spencer, Brighton
Duffy, Ray M.....Pinckney
Fidler, Fred W.....Howell
Glenn, Bernard H.....Fowlerville
Hendren, J. J.....Fowlerville
Hill, Harold C.....Howell
Huntington, Harry G.....Howell
Laboe, Edward W.....State Sanatorium, Howell
Lieber, Robert W.....Howell
May, L. E. (M).....N.T.C. Dispensary, San Diego, California
McGregor, A. J.....Brighton
Meier, Walter E.....Howell
Nicholes, Mildred V.....Howell
Perry, Florence J. C.....17640 San Rosa, Rt. 3, Birmingham
Polack, R. T.....Howell
Sigler, Hollis L.....Howell
Walker, Enos G.....4485 Cordley Lake Road, Lakeland

Luce County

Campbell, Earl H. (E).....Newberry
Gibson, Robert E.....Newberry
Perry, Henry E. (E).....Newberry
Purmort, William R., Jr.....Newberry
Swanson, George F.....VA Hospital, Beckley, West Virginia
Thompson, T. W.....State Hosp., Newberry

Macomb County

Adler, Morton.....19188 Appoline Ave., Detroit
Allen, Leroy K.....18441 Utica Road, Roseville
Banting, O. Fenton.....Richmond
Barker, John G.....8050 Warren Blvd., Centerline
Bower, A. B.....Armada
Brady, Milo J.....21509 Eleven Mile Road, St. Clair Shores
Bryce, James W.....25020 Van Dyke, Centerline
Buckley, Daniel J.....160 S. Walnut, Mt. Clemens
Croman, Joseph M., Jr.....117 Cass Ave., Mt. Clemens
Curlett, James E. (L).....26765 Gratiot, Roseville
Dudzinski, Edmund J.....New Baltimore
Engels, John A.....Richmond
Goldman, B. J.....409 Monitor Leader Bldg., Mt. Clemens
Hartmann, W. B.....1416 S. Gatiot, Mt. Clemens
Heine, Austin W.....99 S. Gratiot, Mt. Clemens
Isbey, Edward K.....25020 Van Dyke, Centerline
Jewell, James H.....29 Lincoln, Mt. Clemens
Juliar, Joseph F.....302 Monitor Leader Bldg., Mt. Clemens
Kane, William J.....67 Cass Ave., Mt. Clemens
Lynch, Russell E.....25020 Van Dyke, Centerline
Maguire, A. J.....4875 Van Dyke Ave., Utica
Mattes, Max W.....610 Monitor Leader Bldg., Mt. Clemens
Miller, Sidney S.....22393 Gratiot, East Detroit
Moore, George F.....410 Monitor Leader Bldg., Mt. Clemens
Mulligan, Philip T.....91 Cass St., Mt. Clemens
Parker, B. Morgan.....Utica
Reichman, Joseph J.....312 Monitor Leader Bldg., Mt. Clemens
Reitzel, Rufus H.....199 S. Gratiot, Mt. Clemens
Revere, J. O.....192 S. Gratiot, Mt. Clemens
Rivard, Charles L.....20825 Mack Ave., Grosse Pte. Woods
Rickman, L. D.....10 Howard St., Mt. Clemens
Roth, George E.....19136 Mendota Ave., Detroit
Rothman, Arthur M.....22552 Gratiot, East Detroit
Ruedisueli, Clarence A.....18215 Utica Road, Roseville
Salot, Russell F.....713 Monitor Leader Bldg., Mt. Clemens
Scher, Joseph N.....130 Cass Avenue, Mt. Clemens
Scher, Sydney.....610 Monitor Leader Bldg., Mt. Clemens
Siegfried, Edward G.....30781 Division St., New Haven
Singer, Nelson.....22422 Gratiot, East Detroit
Smith, Milton C.....50 S. Gratiot, Mt. Clemens
Stone, Elizabeth A.....Romeo
Stryker, Oscar D.....Macomb Co. Health Dept., Mt. Clemens
Sturm, Fred A.....29405 Jefferson, St. Clair Shores
Test, Frederick C. II.....91 Cass Ave., Mt. Clemens
Thompson, Alfred A.....126 Cass Ave., Mt. Clemens
Ullrich, Russell W.....91 Cass Ave., Mt. Clemens
Weiss, J. I.....2449 Ewald Circle, Detroit 6
Wellard, Henry C.....New Baltimore
Whitley, Alec.....31017 Jefferson, St. Clair Shores
Wiley, D. B.....45310 Van Dyke, Utica
Woods, H. B.....Box 97, Fraser
Wyte, William C.....170 Eastman, Mt. Clemens

Manistee County

Grant, Charles L. (R) ..... 90 Maple St., Manistee
Hansen, Earnest C. ..... 78 Maple St., Manistee
Konopa, John F. ..... 57 Poplar St., Manistee
Lalime, Ruth ..... Bear Lake
Lewis, Lee A. (E) ..... 467 Second St., Manistee
Miller, Ernest B. ..... 425 River St., Manistee
Oakes, Ellery A. ..... 401 River St., Manistee
Ogilvie, Gordon D. ..... 210 Savings Bank Bldg., Manistee
Osborn, Samuel ..... Manistee
Ramsdell, Homer A. ..... 398 River St., Manistee
Rowe, Robert E. ..... 326 18th St., Manistee
Switzer, Lars W. ..... Savings Bank Bldg., Manistee

Marquette-Alger Counties

Acocks, J. R. ..... Morgan Heights San., Marquette
Amolsch, Arthur L. ..... St. Luke's Hospital, Marquette
Baron, Benzoin C. ..... Munising
Bennett, M. C. ..... Union National Bank Bldg., Marquette
Berry, Robert F. ..... Bacon Building, Marquette
Bertucci, Joseph P. ..... 114 S. First St., Ishpeming
Bolitho, T. B. ..... St. Luke's Hosp., Marquette
Burke, R. A. ..... Twin City Hospital, Negaunee
Casler, W. L. ..... 131 E. Ridge, Marquette
Cooperstock, M. ..... 418 W. Magnetic, Marquette
Corcoran, W. A. ..... Anderson Building, Ishpeming
Drury, Charles P. ..... Marquette Health Office, Marquette
Elzinga, Eugene R. ..... 315 N. Front St., Marquette
Erickson, Arvid W. ..... Ishpeming Hospital, Ishpeming
Fennig, F. A. ..... 315 N. Front St., Marquette
Green, Southgate J. ..... Gwinn
Harkin, J. C. ..... Marquette
Hirwas, C. L. ..... Huetter Bldg., Marquette
Hornbogen, D. P. ..... Savings Bank Bldg., Marquette
Howe, Lloyd W. ..... Savings Bank Bldg., Marquette
Jaedecke, R. G. ..... Ishpeming
Keskey, George I. ..... Rose Bldg., Suite 4-5, Marquette
Knutson, George O. ..... Twin City Hospital, Negaunee
Lambert, W. C. ..... Huetter Bldg., Marquette
LeGolvan, C. ..... West Washington St., Marquette
Lyons, James W. ..... 2007 Lincoln, Evanston, Illinois
McCann, Neal J. ..... First National Bank Bldg., Marquette
Mudge, William A. ..... 314 Teal Lake Ave., Negaunee
Narotzky, Archie S. ..... Odd Fellows Bldg., Ishpeming
Nicholson, J. B. ..... Savings Bank Bldg., Marquette
Paine, Raymond Lee ..... 415 E. Case St., Negaunee
Paull, F. O. ..... Marquette
Schweinsberg, Sara D. ..... Savings Bank Bldg., Marquette
Serbst, Charles A. ..... Bacon Bldg., Marquette
Sicotte, Isaiah (L) ..... Michigamme
Swinton, A. L. ..... Savings Bank Bldg., Marquette
Tearnan, Raymond A. ..... Munising
Van Riper, Paul (L) ..... Champion
Waldie, George M. ..... Ispheming Hospital, Ispheming
Wickstrom, George B. ..... Madigan Bldg., Munising
Williams, R. G. ..... Ishpeming

Mason County

Bacon, Herbert G. ..... Scottville
Boldyreff, Ephraim B. ..... Custer
Boon, A. F. ..... Ludington
Carney, John R. ..... 202 N. Park, Ludington
Carney, Ruth V. C. ..... 202 N. Park, Ludington
Goulet, Leo J. ..... 222 S. James St., Ludington
Hoffman, Howard B. ..... 121 Ludington Ave., Ludington
Martin, William S. ..... 107 West Ludington Ave., Ludington
Ostrander, Robert A. ..... 121 Ludington Ave., Ludington
Paukstis, Charles A. ..... 111 Court St., Ludington
Slaybaugh, James C. ..... 123 Ludington Ave., Ludington

Mecosta-Osceola-Lake Counties

Bruggema, Jacob ..... Evart
Chess, Leo F. ..... Reed City
Franklin, Benjamin L. (L) ..... Remus
Ivkovich, Paul ..... Reed City
Kilmer, David ..... Reed City
Kilmer, Paul B. ..... Reed City
Kowaleski, Edward ..... Remus
Merlo, Frank A. ..... 206 S. Michigan Ave., Big Rapids
Miller, Charles S. ..... 139 Sanborn Ave., Big Rapids
Mitchell, H. C. ..... 124 Mecosta Ave., Big Rapids
Nelson, Lorenzo ..... Baldwin
Peck, Louis K. (E) ..... Barryton
Treynor, Thomas P. ..... Fairman Bldg., Big Rapids
Van Auken, Edward A. ..... Big Rapids
White, John A. ..... 121 S. Michigan Ave., Big Rapids
Yeo, Gordon H. ..... 126 Maple St., Big Rapids

Menominee County

Brukardt, Herman R. ..... Electric Square Bldg., Menominee
DeWane, Francis J. ..... 117 Ogden Ave., Menominee
DeWane, James N. ..... 117 Ogden Ave., Menominee
Flanagan, Clarence B. ..... 522 Sheridan Road, Menominee
Glickman, L. Grant ..... 958 1st St., Menominee
Gonty, Arthur ..... Menominee
Heidenreich, John R. ..... Daggett
Higley, R. A. ..... Electric Square Bldg., Menominee
Jones, W. S., Jr. ..... Menominee
Jones, William S. ..... 521 Sheridan Road, Menominee
Kaye, John T. ..... 703 Oregon Ave., Menominee
Kerwell, Karm C. ..... Stephenson
Peterson, Allen R. ..... Daggett
Sawbridge, Edward (E) ..... Stephenson
Sethney, Henry T. ..... Electric Square Bldg., Menominee
Sweany, S. K. ..... Powers
Towey, John W. ..... Powers

Midland County

Ballmer, Robert S. ..... 144 W. Main, Midland
Bernier, J. A. ..... Sanford
Blackhurst, R. T. ..... Midland
Bowsher, Robert E. ..... 2719 Ashman St., Midland
Bulmer, Dan J. ..... 402 E. Ellsworth, Midland
Buskirk, Maurice D. ..... 201 Reinhart Bldg., Midland
Gay, Harold H. ..... Dow Chemical Co., Midland
Gordon, Harold L. ..... Dow Chemical Co., Midland
Grewe, Norman C. ..... 347½ E. Main St., Midland
Gronemeyer, William H. ..... 127 MacDonald, Midland
Hautau, Emily R. ..... Court House, Midland
High, C. U., Jr. ..... 2100 Isabella Rd., Midland
Ittner, Martin ..... 2912 Ashman St., Midland
Kilian, D. J. ..... Midland
Linsenman, Karl W. ..... 312 E. Main St., Midland
MacCallum, Charles ..... 221 Reinhart Bldg., Midland
Maynard, W. A. ..... Coleman
Meisel, Edward H. ..... 413 Lingle Lane, Midland
Pike, Melvin H. ..... 209 Reinhart Bldg., Midland
Poznak, Leonard A. ..... 220 W. Collins Ave., Midland
Sherk, Joseph H. ..... Masonic Bldg., Midland
Towsley, W. D. ..... Midland

Monroe County

Acker, William F. ..... 106 E. Front St., Monroe
Ames, Florence ..... 2 W. Noble Ave., Monroe
Barker, Vincent L. ..... 127 E. Front St., Monroe
Blakey, L. C. ..... 222 N. Monroe St., Monroe
Bond, W. W. ..... 4 East Front St., Monroe
Brancheau, Linus T. ..... Petersburgh
Cigany, Zoltan B. ..... 1402 Monroe, Carleton
Dusseau, S. V. (E) ..... Erie
Ewing, R. T. ..... 130 Maple Blvd., Monroe
Flanders, J. P. ..... 31 Washington, Monroe
Frary, R. A. ..... 423 E. Elm Ave., Monroe
Freud, John W. ..... 222 N. Monroe, Monroe
Gelhaus, Wm. J. ..... 4 East Front St., Monroe
Golinvaux, C. J. ..... 118 East First, Monroe
Heffernan, John F. ..... Carleton
Hensel, Hilda ..... 12 E. Fourth, Monroe
Hunter, M. A. ..... 35 East Front St., Monroe
Johnson, A. Esther ..... 31 Washington Ave., Monroe
Kelso, S. Newton, Jr. ..... 9 South Monroe St., Monroe
Kilduff, W. A. ..... Dundee
Lammers, Gerald P. ..... Ida
Landon, Herbert W. (E) ..... 106 E. Front St., Monroe
Long, Edgar C. ..... 127 E. Front St., Monroe
Long, Sara ..... 130 Maple Blvd., Monroe
Mahoney, Thomas W. ..... 218 E. First St., Monroe
McDonald, T. A. ..... 7 East Front St., Monroe
McGeoch, R. W. ..... 633 N. Macomb, Monroe
McMillin, J. H. ..... 423 E. Elm St., Monroe
Newcomer, Sheldon R. ..... 31 Washington, Monroe
Parmelee, O. E. ..... Lambertville
Pinkus, Hermann ..... 12 E. Fourth St., Monroe
Reisig, Albert H. ..... 5 East Front St., Monroe
Sanger, Emerson J. ..... 3 East Front St., Monroe
Tomlinson, Ledyard H. ..... Newport
Van Dyke, A. E. ..... 31 Washington, Monroe
Wagar, Spencer H. ..... 31 Washington St., Monroe
Williams, Robert J. ..... 31 Washington St., Monroe
Williamson, George W. ..... Dundee

Muskegon County

Anderson, A. J. ..... 1371 Peck Street, Muskegon
Anderson, Axel W. ..... Lakewood Club, Twin Lake
Atkinson, A. L. ..... Anderson Bldg., Muskegon Heights
August, R. V. ..... 72 E. Broadway, Muskegon Heights
Barnard, Helen S. ..... Nedeau Bldg., Muskegon
Beers, C. W. ..... 68 E. Broadway, Muskegon Heights
Benedict, Arthur L. ..... 22 W. Southern Ave., Muskegon
Bloom, C. J. ..... 59 E. Larch St., Muskegon
Bolthouse, Robert E. ..... 1214 Peck St., Muskegon Heights
Boyd, D. R. ..... 1735 Peck St., Muskegon Heights
Bradshaw, Park S. ..... 1014 Jefferson, Muskegon
Busard, J. Max ..... 450 W. Western Ave., Muskegon
Chapin, William S. (A) ..... 638 Sanford St., Muskegon Heights
Christophersen, James W. ..... Hackley Bank Bldg., Muskegon
Clapp, Henry W. ..... 88 Strong Ave., Muskegon
Clark, Harry L. ..... Hackley Hospital Lab., Muskegon
Closz, Harold F. ..... 809 Hackley Union Bank Bldg., Muskegon
Cohan, Sol G. ..... 1114 Second St., Muskegon
Dasler, A. F. (M) ..... Naval Training Center, Great Lakes, Ill.
Diskin, Frank L. ..... 410 Jackson Ave., Muskegon
Durham, Clarence J. (L) ..... 868 N. Second, Muskegon
Dykhuizen, Harld D. ..... 608 Hackley Union Bank Bldg., Muskegon
Ellis, Nicholas J. ..... 1883 Lake Shore Drive, Muskegon
Emerick, Robert W. ..... 878 N. Second St., Muskegon
Fillingham, Enid ..... 870 N. Second St., Muskegon
Fleischmann, C. B. ..... 250 W. Webster, Muskegon
Fleishman, Norman A. ..... 1094 Jefferson, Muskegon
Gaikema, Everett W. ..... Muskegon Co. Sanitorium, Muskegon
Garber, Frank W., Jr. ..... 1178 Third St., Muskegon
Gillard, James L. ..... Michigan Theatre Bldg., Muskegon
Goltz, Martha H. ..... Montague
Greene, Henry P. ..... 764 Pine St., Muskegon
Griffith, Robert M. ..... 1217 Fifth St., Muskegon
Hagen, William A. ..... 1255 Palmer Blvd., Muskegon
Hanley, W. J. (A) ..... 1628 W. Wisconsin Ave., Milwaukee, Wisconsin
Harryman, James E. ..... 209 Lyman Bldg., Muskegon
Hartwell, Shattuck W. ..... 452 W. Western Ave., Muskegon
Heneveld, Edward H. ..... 1603 Peck St., Muskegon
Heneveld, John ..... 1603 Peck St., Muskegon
Heneveld, Robert G. ..... 1129 Peck St., Muskegon
Hennessy, M. E. ..... 1624 Peck St., Muskegon
Holly, Leland E. ..... 876 Second St., Muskegon
Holmes, Roy H. ..... 316 Hackley Union Bldg., Muskegon
Jiroch, J. T. (A) ..... 3926 Canton, Detroit
Joistad, Arthur H. ..... 878 Second St., Muskegon
Kane, Thomas J. ..... 179 Strong Ave., Muskegon
Kay, Cecelia S. ..... 405 Muskegon Bldg., Muskegon
Keilin, Marie ..... 403 Michigan Theatre Bldg., Muskegon
Kerr, Howard J. ..... 1441 Lakeshore Drive, Muskegon
LaFollette, P. S. ..... 1075 Jefferson St., Muskegon
Lange, Eugene W. ..... Hackley Hospital, Muskegon
Lapham, Landon M. ..... Whitehall
Lauretti, Emil J. ..... 815 Hackley Bank Bldg., Muskegon
Laurin, Vilda S. ..... 804 Hackley Bank Bldg., Muskegon
LeFevre, Louis ..... 450 W. Western Ave., Muskegon
LeFevre, William M. ..... 289 W. Western, Muskegon
Loder, Leonel L. ..... Hackley Union Bldg., Muskegon
Mandeville, C. B. ..... 515 Hackley Union Bank Bldg., Muskegon
McNair, John N. ..... 967 Second St., Muskegon
Medema, Paul E. ..... 1017 Sanford, Muskegon
Meengs, Marvin B. ..... 1725 Peck St., Muskegon
Miller, Philip L. ..... 1755 Peck St., Muskegon
Mulligan, A. W. ..... 304 Muskegon Bldg., Muskegon
Oden, Constantine L. A. ..... 804 Hackley Bank Bldg., Muskegon
Powers, Lunette (E) ..... 337 Morris Ave., Muskegon
Prentice, Edwin W. ..... 1017 Sanford St., Muskegon
Price, Leonard ..... 1282 Arthur St., Muskegon
Pyle, Henry J. ..... 506 Muskegon Bldg., Muskegon
Risk, Robert D. ..... 1160 Ransom St., Muskegon
Scholle, Norbert W. ..... Anderson Bldg., Muskegon Heights
Sears, Richard ..... Court House, Muskegon
Shebasta, Emil M. ..... 1075 Jefferson, Muskegon
Smith, M. Luther ..... 840 Pine St., Muskegon
Swartout, W. C. (L) ..... 514 Hackley Union Bank Bldg., Muskegon
Swenson, Leland L. ..... 1724 Peck St., Muskegon
Teifer, Charles A. ..... 407 Muskegon Bldg., Muskegon
Tellman, H. Clay ..... Hackley Bank Bldg., Muskegon
Theime, S. W. (L) ..... Ravenna
Thornton, Eugene S. ..... 802 Hackley Union Bank Bldg., Muskegon
Toy, Charles M. ..... 1067 Pine St., Muskegon
Tyler, William H. ..... Muskegon Bldg., Muskegon
Vanderlaan, John E. ..... 1624 Peck St., Muskegon
Van Gelder, W. E. ..... Hackley Union Bank Bldg., Muskegon
Wagenaar, Edward H. ..... Muskegon, Bldg., Muskegon
Walker, George ..... Hackley Union Bank Bldg., Muskegon
White, W. G. ..... 1735 Peck St., Muskegon
Wiersma, Silas C. ..... Hackley Union Bldg., Muskegon
Wildgen, Bernard C. ..... 416 Hackley Bank Bldg., Muskegon
Wilke, Carl A. ..... Montague
Wilson, Pitt S. (L) ..... 1377 Peck St., Muskegon
Williams, Edward V. ..... 905 Jarman St., Muskegon Heights

Newaygo County

Cook, J. M. ..... Newaygo
Deur, Theodore R. ..... Grant
Geerlings, Lambert J. ..... 20 N. Division St., Fremont
Geerlings, Ralph W. ..... 20 N. Division St., Fremont
Harris, Dean W. ..... 43 E. Main St., Fremont
Klein, J. Paul ..... 16 W. Sheridan, Fremont
Masters, Brooker L. ..... 43 W. Main St., Fremont
Moore, Hugh R. ..... 38 State St., Newaygo
O'Neill, John W. ..... Court House, White Cloud
Tompsett, Arthur C. ..... 18 N. Division St., Hesperia

North Central Counties

Backe, John C. ..... Box 434, Gaylord
Boehm, John D. (R) ..... West Branch
Clippert, Clarence G. ..... 308 Michigan Ave., Grayling
Coulter, Keith D. ..... Gladwin
Egle, Joseph L. ..... Northern Michigan TB San., Gaylord
Forney, F. A. ..... Northern Michigan TB San., Gaylord
Gehman, J. R. ..... Box 34, Fairview
Hasty, Earl ..... 115 Burgess, West Branch
Hayes, Louis F. ..... Grayling
Henig, B. Elmore ..... 308 Michigan Ave., Grayling
Hoenig, Andrew L. ..... 76 State St., Mance Lona
Jardine, Hugh M. ..... 109 S. Third St., West Branch
Keyport, Claude R. ..... 308 Michigan Ave., Grayling
Kirker, F. O. ..... Prudenville
Libke, Robert ..... Gaylord
Martzowka, M. A. ..... Roscommon
McKillop, G. L. ..... Gaylord
Schaiberger, George L. ..... 707 W. Hought St., West Branch
Stealy, Stanley A. ..... Box 485, Grayling
Timreck, Harold A. ..... Gladwin

Northern Michigan

Albi, Robert J. ..... Boyne City
Alm, Bernhard T. ..... 309½ E. Mitchell, Petoskey
Barrett, J. L. ..... Petoskey
Blum, Benjamin B. ..... Petoskey
Burns, Dean C. ..... 314½ Howard St., Petoskey
Conkle, Guy C. ..... Boyne City
Conti, Joseph B. ..... Petoskey
Conway, William S. ..... Burns Clinic, Petoskey
Drake, G. ..... Petoskey
Duffie, Don H. ..... Central Lake
Grate, Lawrence E. ..... 304 Mason St., Charlevoix
Hegener, A. J. ..... Petoskey
Kirk, T. R. ..... Petoskey
Lentini, Nicholas ..... Cheboygan
Lilga, Harris U. ..... 113 Howard St., Petoskey
Litzenburger, Albert F. ..... Boyne City
Mateskon, V. S. ..... Petoskey
Mayne, Frederick C. ..... Cheboygan
McClintock, Robert S. ..... 704 E. Lake, Petoskey
McEvoy, Francis J. ..... 245 E. Main St., Harbor Springs
Palmer, Russell E. ..... St. James
Parks, William H. ..... Petoskey
Rodger, John R. ..... Bellaire
Saltonstall, Gilbert B. ..... 112 Clinton St., Charlevoix
Savory, John ..... East Jordan
Stringham, James R. ..... 225 Backus St., Cheboygan
Van Dellen, Jerrian ..... East Jordan
Weburg, Kathryn O. ..... Petoskey
Wood, George H. ..... Onaway

Oakland County

Abbot, James A. ..... Pontiac State Hospital, Pointiac
Abbott, Vernon C. ..... 1405 Pontiac State Bldg., Pontiac
Adair, Robin ..... 1016 N. Hunter Blvd., Birmingham
Adams, Frederick M. ..... 322 Wabeek Bldg., Birmingham
Arnkoff, Harry ..... 305 First National Bank Bldg, Pontiac
Aulie, H. G. ..... 307 W. Sixth, Royal Oak
Baker, Frederick A. ..... 4575 Motorway Drive, Pontiac
Baker, Robert H. ..... 1110 Pontiac State Bank Bldg., Pontiac
Bannow, Robert J. ..... 704 Pontiac State Bank Bldg., Pontiac
Barefield, Alwin S. ..... 20879 Bethlawn, Ferndale
Barker, Howard B. ..... 1006 Riker Bldg., Pontiac
Bauer, Edward G. ..... 101½ N. Saginaw, Pontiac
Bauer, Ernest W. ..... 23005 John R St., Hazel Park
Beck, Otto O. ..... 308 Wabeek Bldg., Birmingham
Beattie, W. G. ..... Professional Bldg., Ferndale
Beebe, Willard E. ..... 1411 Pontiac State Bank Bldg., Pontiac
Belknap, Warren F. ..... 1809 S. Main St., Royal Oak
Berg, Richard H. ..... 2 S. Washington, Oxford

Blue, Jane....218 Riker Bldg., Pontiac
Boucher, R. E....617 Washington Square Bldg., Royal Oak
Brooks, A. L....G.M.C., Pontiac
Bujar, Ellen S....State Hosp., Pontiac
Bullard, R. W....Clarkston
Burgess, Charles M....23235 Woodward Ave., Ferndale
Burke, Chauncey G....1022 Riker Bldg., Pontiac
Butler, Samuel....State Hospital, Pontiac
Calhoun, Ethel T....707 Lakeview, Birmingham
Cefai, A. F....412 People State Bldg., Pontiac
Cobb, Leon F....83½ N. Saginaw, Pontiac
Cobb, Thomas H....804 Riker Bldg., Pontiac
Collins, Edward F....26½ Huron West, Pontiac
Conrad, C. D....3027 Woodward, Royal Oak
Cooley, Roy V., Jr....159 Wesson St., Pontiac
Cooper, Robert J....Riker Bldg., Pontiac
Couche, Henry O....12475 San Jose Blvd, Birmingham
Crissman, H. C....22748 Woodward Ave., Ferndale
Cudney, Ethan B....Pontiac Motor Division, Pontiac
Dahlgren, Carl W....301½ Orchard Lake Road, Krego Harbor
Darling, C. G., Jr....1025 Riker Bldg., Pontiac
DeLawter, Hilbert....Rochester
Deutsch, William L....600 W. First, Huntington Woods
Dobski, Edwin J....236 Riker Bldg., Pontiac
Dunlap, Gregg L....2925 Orchard Lake Ave., Keego Harbor
Dunn, Lewis E....5876 Thomas, Berkley
Durocher, Normand E....605 Pontiac State Bank Bldg., Pontiac
Ekelund, Clifford T....906 Riker Bldg., Pontiac
Endress, Zac....206 Oneida Drive, Pontiac
Farnham, Lucius A. (L)....538 Riker Bldg., Pontiac
Ferris, Ralph G....205 Hanna Bldg., Birmingham
Fink, L. Jerome....1411 Pontiac State Bank Bldg., Pontiac
Flick, Earl J....120 W. Second St., Royal Oak
Flick, John R....120 West Second, Royal Oak
Foust, Earl W....1625 E. Fourth, Royal Oak
Furlong, Harold A....932 Riker Bldg., Pontiac
Gaba, H. B....Hazel Park
Gadbaw, Joseph J....23603 Farmington Road, Farmington
Gaensbauer, Ferdinand....932 Riker Bldg., Pontiac
Gariepy, Bernard F....Oakland Center Hospital, 120 W. First St., Royal Oak
Gates, E. M....206-10 Riker Bldg., Pontiac
Gatley, C. R....97 N. Perry St., Pontiac
Gatley, L. Warren....97 N. Perry St., Pontiac
Gehringer, Norman F....336 Riker Bldg., Pontiac
Geib, Ormond D....Avon Bldg., Rochester
Gerls, Frank B....602 Peoples State Bank Bldg., Pontiac
Gibson, James C. (E)....206 E. Commerce, Milford
Gibson, Wellington C....216 Commerce St., Milford
Gill, Matthew J....Riker Bldg., Pontiac
Goode, Norman J....109 E. Nine Mile, Ferndale
Gradolph, P. L....23338 Woodward, Ferndale
Grant, William A. (L)....Milford
Green, James D....311 Wabeek Bldg., Birmingham
Green, William M....1402 Pontiac State Bldg., Pontiac
Hackett, Daniel J....1205 Peoples State Bldg., Pontiac
Haddock, D. A....5780 Lakeview, Rt. 5, Pontiac
Hagman, George....Cranbrook School, Bloomfield Hills
Halsted, Lee H....33311 Grand River, Farmington
Hammonds, E. E....209 Wabeck Bldg., Birmingham
Han, Maolin....Auburn Heights
Hardy, George C....240 Oak Drive, Box 135-G, Rt. 2, Rochester
Harsh, Robert C....51 Niagara, Pontiac
Harvey, Campbell....832 Riker Bldg., Pontiac
Hasner, Robert B....617 Washington Square Bldg., Royal Oak
Hassberger, J. B....316 Wabeek Bldg., Birmingham
Hathaway, Clarence L....33 S. Broadway, Lake Orion
Hathaway, William S....433½ Main St., Rochester
Hendren, Owen S....1408 Pontiac State Bank Bldg., Pontiac
Henry, R., Colonel....Professional Bldg., Ferndale
Hensley, C. B....46 W. Flint St., Lake Orion
Hershey, Lynn N....Rt. 1, 31275 Franklin Blvd., Birmingham
Howlett, E. V. (L)....538 Riker Bldg., Pontiac
Hoyt, Donald F....1203 Pontiac State Bank Bldg., Pontiac
Hubert, John R....738 Riker Bldg., Pontiac
Hutchinson, W. G. (L)....Riker Bldg., Pontiac
Kemp, Felix J....1115 Peoples State Bank Bldg., Pontiac
Kemp, W. Lloyd....450 Maple Road, Birmingham
Kendrick, H. F....Pontiac
Klewicki, H. A....125 W. Nine Mile, Pontiac
Koehler, William H....629 Washington Square Bldg., Royal Oak
Kuhn, Henry....817 E. Eight Mile Road, Hazel Park
Kuhn, R. E....1706 West Blvd., Berkley
Lahti, P. T....2412 Benjamin, Royal Oak
LaMarche, Norman O....2827 Woodward, Berkley
Lambert, A. G....3021 Woodward, Royal Oak
Lambie, John S....280 Aspen Road, Birmingham
Laux, Philip J., Jr....3027 N. Woodward, Royal Oak
Lewis, S. M....400 W. Nine Mile, Ferndale
Ling, Theodore W....Farmington
Lockwood, C. E....107 Martha St., Holly
Lowery, A. J....Rt. 5, Pontiac
MacKenzie, O. R....128 Common St., Walled Lake
Markle, John G....617 Washington Square Bldg., Royal Oak
Markley, John M....849 W. Huron St., Pontiac
Mason, Robert J....308 N. Woodward Ave., Birmingham
McConkie, J. P....311-2 Wabeek Bldg., Birmingham
McNeill, H. H....83½ S. Saginaw, Pontiac
Mehas, C. P....Oakland Co. Sanitarium, Pontiac
Meinke, Herman A....817 E. 8 Mile Road, Hazel Park
Meng, Ralph H....6315 Livernois, Rochester
Mercer, Frank A....1401 Pontiac State Bank Bldg., Pontiac
Merrill, Lionel N....330 Washington Square Bldg., Royal Oak
Miller, Hazen L....617 Washington Square Bldg., Royal Oak
Miller, Sidney....391 Hamilton Ave., Birmingham
Moloney, J. Clark....240 Daines, Birmingham
Monroe, John D....Oakland County Health Dept., Pontiac
Morton, James A....St. Joseph Mercy Hospital, Pontiac
Mumby, Clinton J....Pontiac State Bank Bldg., Pontiac
Neafie, Charles A....Pontiac City Health Dept., Pontiac
Norup, John....2818 Collidge Hwy., Berkley
Nosanchuk, Joseph....1215 Pontiac State Bank Bldg., Pontiac
Olsen, Richard E....St. Joseph Mercy Hospital, Pontiac
Palmer, Hayden....506 Riker Bldg., Pontiac
Pauli, Theodore H....206 Riker Bldg., Pontiac
Payton, Charles F....611½ S. Washington, Royal Oak
Pearce, James F....114 S. Washington, Royal Oak
Pelletier, Charles J....817 E. Eight Mile Road, Hazel Park
Petroff, George N....549½ N. Perry St., Pontiac
Porritt, Ross J....304 Riker Bldg., Pontiac
Prather, Frank....Milford
Prevette, Isaac C....215 First National Bank Bldg., Pontiac
Quarton, Albert E....3027 N. Woodward, Royal Oak
Raynale, George P....302 Wabeek Bldg., Birmingham
Reid, Fred T....Clawson State Bank Bldg., Clawson
Riggs, Harry L....42½ S. Saginaw, Pontiac
Riker, Aaron D....1012 Riker Bldg., Pontiac
Roehm, Harold R....Wabeek Bldg., Birmingham
Rowley, Laurie G....440 Dixie Highway, Drayton Plains
Rupp, Edson C....202 Crane Ave., Royal Oak
Russell, Vincent P....624 Washington Square Bldg., Royal Oak
Ruva, Joseph....97 S. Edith St., Pontiac
St. John, Harold A....718 Riker Bldg., Pontiac
Schlecte, Carl....Rochester
Schuneman, Howard....22765 Woodward, Ferndale
Schwarz, M. L....Walled Lake
Seaborn, A. J....1412 S. Washington St., Royal Oak
Shadley, Maxwell L....419 W. Iroquois Road, Pontiac
Sibley, H. A....15 Mathews, Pontiac
Simpson, E. K....804 Pontiac State Bank, Pontiac
Smith, Carleton A....822 Riker Bldg., Pontiac
Smith, Donald S....824 Riker Bldg., Pontiac
Smith, George E....629 Washington Square Bldg., Royal Oak
Spencer, Lloyd H....1302 S. Washington, Royal Oak
Spoehr, Eugene L....22832 Woodward, Ferndale
Spohn, Earl W....201 S. Center St., Royal Oak
Stageman, John C....1116 Pontiac State Bank Bldg., Pontiac
Stahl, Harold F....Oxford
Stanley, William F....1148 S. Woodward, Royal Oak
Starker, C. T....716 Community Bank Bldg., Pontiac
Steffes, Everett M....3345 Coolidge Highway, Berkley
Steinberg, Norman N....211 Washington Square Bldg., Royal Oak
Stolpman, A. K....306 Wabeek Bldg., Birmingham
Sullenberger, N. H....1301 Pontiac State Bank Bldg., Pontiac
Sutton, Palmer E....629 Washington Square Bldg., Royal Oak
Swickle, Edward F....17 S. Main, Clawson
Tauber, Abraham....1108 People State Bank Bldg., Pontiac
Tolle, Charles B....Riker Bldg., Pontiac
Tuck, Raymond G....17 Delaware Drive, Pontiac
Uloth, Milton J....Ortonville
Van Haltern, H. L....Riker Bldg., Pontiac
Virga, George M....12744 LaSalle, Huntington Woods
Wagley, P. V....Pontiac State Hospital, Pontiac
Wagner, Ruth E....201 First, Royal Oak
Wake, Douglas L....1307 S. Washington, Royal Oak
Watson, Arthur M....Lake Orion
Weisberg, William E....802 S. Washington, Royal Oak
Wessels, Robert R....302 Wabeek Bldg., Birmingham
Whitehouse, John D....State Hospital, Pontiac
Wigent, Ralph D....171 Crestwood, Pontiac
Williams, John P....1102 Peoples State Bldg., Pontiac
Willis, Maurice....1107 Pontiac State Bank Bldg., Pontiac
Young, Arthur R....906 Riker Bldg., Pontiac

Oceana County

Flint, Charles H....315 State St., Hart
Hasty, Willis A....405 State St., Shelby
Hayton, A. R....327 Michigan Ave., Shelby
Heard, William H....Pentwater
Munger, L. P. (E)....Hart
Nicholson, John H. (E)....Hart
Reetz, Fred A. (A)....Shelby
Robinson, Wm. G....35 State St., Hart
Wood, Merle G....19 Courtland St., Hart

Ontonagon County

Bender, Jesse L....Mass
Hogue, H. B....Ewen
Lahti, Carl R....700 River St., Ontonagon
Strong, W. F....Ontonagon

Ottawa County

Beernink, E. H.....Grand Haven
Bloemendaal, D. C.....351 W. Michigan, Zeeland
Bloemendal, W. B.....Grand Haven
Boersma, V. L. (M).....Holland
Boone, Cornelius E.....Zeeland
Bulthuis, Jerry E.....Jamestown
Clark, N. H.....R.R. No. 4, Holland
Cook, Carl S.....Holland
DeVries, H. G.....36 E. Eighth St., Holland
DeYoung, Fred W.....Spring Lake
Groat, Frank L.....414 Franklin St., Grand Haven
Hager, Ralph.....Hudsonville
Hamelink, M. H.....Holland
Harms, H. P.....Holland
Kearney, J. B.....Holland
Kemme, Gerrit.....Zeeland
Kitchel, John H.....Grand Haven
Kitchel, Mary.....Grand Haven
Kools, William C.....194 W. 11th St., Holland
Leenhouts, Abraham (E).....Holland
Long, C. E. (L).....Grand Haven
Michmerhuizen, R. E.....408 Fulton, Grand Haven
Moerdyk, William G.....120 W. 14th St., Holland
Nichols, Rudolph H.....Holland
Nykamp, Russell.....Zeeland
Rypkema, Willard M.....Grand Haven
Schaftenaar, R. H.....Holland
Stobbelaar, Robert.....Grand Haven
Ten Have, Ralph.....1016 Sheldon, Grand Haven
Ten Pas, Henry W.....Box 47, Hamilton
Timmerman, E. C.....Coopersville
Van Appledorn, C. J.....Grand Haven
Van Der Berg, E.....Holland
Van der Velde, O.....35 W. 8th St., Holland
Van Kolken, P. J.....Grand Haven
VerDuin, J. W.....Grand Haven
Wells, Kenneth N.....Spring Lake
Westrate, William.....Holland
Winter, John K.....Holland
Winter, William G.....Holland
Yonkman, F. F.....58 Pomeroy Road, Madison, N. J.

Saginaw County

Ackerman, G. L.....124 S. Jefferson Ave., Saginaw
Albers, M. J.....715 Court St., Saginaw
Anderson, William K.....404 S. Warren Ave., Saginaw
Bagley, Ulysses S.....1401½ N. Sixth St., Saginaw
Beckett, M. B.....1500 Weiss St., Saginaw
Berberovich, Thomas F.....2005½ N. Michigan Ave., Saginaw
Bishop, H. Mortimer.....515 S. Jefferson, Saginaw
Brender, Fred P.....Frankenmuth
Brock, W. H. (L).....9 Merrill Bldg., Saginaw
Bruggers, Laurence.....418 W. Genesee Ave., Saginaw
Bruton, Martin F.....315 S. Jefferson Ave., Saginaw
Bucklin, Robert.....1447 N. Harrison, Saginaw
Bullington, Bert M.....Room 213, Bearinger Bldg., Saginaw
Busch, Frank J.....1731 N. Michigan, Saginaw
Butler, Milton G.....502 S. Jefferson, Saginaw
Cady, Frederick J.....402 S. Jefferson Ave., Saginaw
Cambridge, V. W.....400½ Potter St., Saginaw
Cameron, Allen K.....409 Peoples Bldg. & Loan Bldg., Saginaw
Campbell, Lloyd A.....405 Peoples Bldg. & Loan Bldg., Saginaw
Catizone, Roy J.....Merrill
Chisena, Peter R.....6227 Dixie Highway, Bridgeport
Clark, Wilbert B. (L).....54 Grosvenor Rd., Kenmore, N. Y.
Claytor, Archer A.....1000½ N. Third Ave., Saginaw
Cortopassi, Andre J.....324 S. Washington, Saginaw
Cortopassi, Vital E.....324 S. Washington Ave., Saginaw
Cory, Charles W.....611 Bldg. & Loan Bldg., Saginaw
Curts, James H.....127 S. Washington, Saginaw
Durman, Donald C.....408 S. Jefferson Ave., Saginaw
Ely, Cecil W.....1820 Janes St., Saginaw
Ernst, Arthur R. (R).....505 Peoples Bldg. & Loan, Saginaw
Fleschner, Thomas E.....Birch Run
Friedrick, David F.....Frankenmuth
Gage, David P.....514 First Savings & Loan, Saginaw
Galsterer, Edwin C.....507-9 Bldg. & Loan Bldg., Saginaw
Gamon, A. E.....514 First Savings & Loan, Saginaw
Gardner, Joe H.....112 N. Michigan Ave., Saginaw
Gerber, H. V.....207 Wiechmann Bldg., Saginaw
Gomon, Louis D.....308 Eddy Bldg., Saginaw
Grigg, Arthur (E).....320 N. Michigan Ave., Saginaw
Grigg, Arthur P.....320 N. Michigan, Saginaw
Hand, Eugene A.....211 Bearinger Bldg., Saginaw
Harvie, L. C.....405 Wiechmann Bldg., Saginaw
Havenrich, Robert M.....529 W. Genesee, Saginaw
Helmkamp, Herbert O.....307 Second Nat. Bank Bldg., Saginaw
Hester, Eustace G.....2031 N. Michigan Ave., Saginaw
Hill, Victor L.....518 Janes Street, Saginaw
Hohn, Fred, Jr.....407 Wiechmann Bldg., Saginaw
Howell, Don M.....506 Wiechmann Bldg., Saginaw
Jaenichen, Robert.....530 Hayden, Saginaw
James, J. W.....418 W. Genesee, Saginaw
Jiroch, Ralph S.....202 Wiechmann Bldg., Saginaw
Johnstone, K. J.....Sag. Mall. Iron Central Fdry., 63 Florence Ave., Saginaw
Jordan, Leo A.....1524 E. Genesee, Saginaw
Kemp, J. N. (L).....1320 S. Michigan Ave., Saginaw
Kempton, Rockwell M.....333 S. Jefferson St., Saginaw
Kerr, William B.....300 S. Michigan, Saginaw
Keyes, James T.....Birch Run
Kickham, Edward F.....309 S. Jefferson Ave., Saginaw
Kleekamp, Herbert G.....1005 Gratiot Ave., Saginaw
Kolesar, R. C.....2702 S. Washington, Saginaw
Kowals, Francis V.....Chevrolet Serv. Mfg., 429 S. Park St., Saginaw
LaPorte, Lawrence A.....1121 N. Michigan, Saginaw
Ling, Ernest M. (R).....Spring Lake
Ling, Kenneth C.....Box 135, Hemlock
Lohr, Oliver W.....537 Millard St., Saginaw
Longstreet, Martha L. (L).....520 Hayden St., Saginaw
Love, James M.....Burns Clinic, Petoskey
Luger, Frederick E.....303 N. Jefferson, Saginaw
Lurie, Robert.....2525 S. Washington, Saginaw
Lyle, Richard C.....Bridgeport
Mac Kinnon, E. D.....1616 Court St., Saginaw
MacMeekin, James W.....1213 N. Michigan, Saginaw
Manning, John E.....112 N. Michigan Ave., Saginaw
Manning, J. W.....515 N. Jefferson, Saginaw
Markey, Francis L.....628 Gratiot Ave., Saginaw
Markey, Joseph P.....628 Gratiot Ave., Saginaw
Martzowka, William P.....415½ W. Genesee, Saginaw
Matthews, Harry C.....507 Bldg. & Loan Bldg., Saginaw
Maurer, John A.....520 W. Genesee Ave., Saginaw
Mayne, Harold E.....305 Graebner Bldg., Saginaw
McKinney, Alexander R.....330 S. Washington, Saginaw
Meyer, Henry J. (E).....301 S. Jefferson, Saginaw
Mikan, V. Robert.....420 N. Michigan Ave., Saginaw
Miller, G. F.....1447 N. Harrison, Saginaw
Moon, A. R.....305 Second National Bldg., Saginaw
Morgrette, Leonard J.....603 S. Jefferson, Saginaw
Mudd, Richard D. (M).....Surgeon 10 AF, Selfridge Field
Murphy, Albert P.....303 N. Michigan Ave., Saginaw
Murray, Charles R.....1827 N. Michigan Ave., Saginaw
Murray, Morris J.....603 S. Jefferson, Saginaw
Nelson, Oscar A.....120 N. Michigan, Saginaw
Northway, R. O.....505 Bldg & Loan Bldg., Saginaw
Novy, Frank O.....420 S. Jefferson, Saginaw
Olson, Carl Porter.....1447 N. Harrison, Saginaw
Ostrander, Frank W.....Freeland
Phillips, H. A.....419 First Savings & Loan Bldg., Saginaw
Pietz, Frederick.....221 N. Michigan Ave., Saginaw
Pillsbury, Edward A.....Frankenmuth
Poole, Frank A. (L).....505 Millard St., Apt. 409, Saginaw
Potvin, Clifford D.....2031 N. Michigan Ave., Saginaw
Powers, R. F.....529 W. Genesee Ave., Saginaw
Richards, Ned W.....111 N. Oakley, Saginaw
Richter, Harry J.....604 Second Nat. Bank Bldg., Saginaw
Roggen, Ivan J.....611 First Savings & Loan, Saginaw
Ruskin, D. B.....301 Second Nat. Bank Bldg., Saginaw
Ryan, M. D. (E).....635 S. Washington Ave., Saginaw
Ryan, Richard S. (M).....Naval Med. School, Bethesda, Md.
Sample, John T.....708 Second National Bank Bldg., Saginaw
Sargent, Donald V.....418 W. Genesee, Saginaw
Schaiberger, Elmer G.....1520 N. Michigan Ave., Saginaw
Schneider, A. N.....509 S. Jefferson Ave., Saginaw
Schultz, F. R.....Chesaning
Sharp, Martin C.....1811 N. Michigan, Saginaw
Sheldon, Suel A.....515 Peoples Bldg. & Loan Bldg., Saginaw
Shoemaker, J. C.....Vet. Hospital, Saginaw
Siler, Delbert E.....1811 Michigan Ave., Saginaw
Skowronski, Casimer A.....1401 E. Genesee, Saginaw
Slack, Walter K.....308 Eddy Bldg., Saginaw
Stahly, Edward H.....Saginaw Co. Hosp., Town Line Rd., Saginaw
Stander, A. C.....1411 Court St., Saginaw
Stewart, George W.....1902 Janes, Saginaw
Sulfridge, Hugh L.....305 Graebner Bldg., Saginaw
Thompson, Arthur B.....2328 E. Genesee Ave., Saginaw
Tiedke, G. E.....120 N. Michigan Ave., Saginaw
Topp, Edwin W. (M).....Sampson Air Base, Geneva, N. Y.
Toshach, Clarence E.....330 S. Jefferson Ave., Saginaw
Volk, V. K.....1501 N. Michigan Ave., Saginaw
Wallace, H. C., Lt. Col. MC (M).....Hq. Central Command APO 503, c/o P.M., San Francisco, Calif.
Westlund, Norman.....1501 N. Michigan, Saginaw
Wilson, H. Roy (R).....526 Potter, Saginaw
Wright, Edwin M.....404 S. Warren, Saginaw
Yntema, Stuart.....333 S. Jefferson Ave., Saginaw

St. Clair County

Bailey, Robert S.....Port Huron
Banting, Kenneth C.....Peoples Bank Bldg., Port Huron
Battley, J. C. Sinclair.....940 Military Ave., Port Huron
Beck, Frank K.....901 Lapeer, Port Huron
Beer, Joseph F.....South Riverside Dr., St. Clair
Benjamin, Clayton C.....600 Park St., Port Huron
Biggar, R. J.....Bahrein Island, Persian Gulf
Borden, Charles L.....216 Sperry Bldg., Port Huron
Bottomley, Thomas H.....1102 Sixth St., Port Huron
Boughner, W. H.....P. O. Box 286, Algonac
Bovee, M. E.....2208 Stone St., Port Huron
Bowden, William S.....137 Water St., Marine City
Brush, Howard O.....606 Peoples Bank Bldg., Port Huron
Campbell, Mary B.....W.B.A. Building, Port Huron

Cantwell, John D. (M)....Port Huron
Carey, L. M. (R)....7909 Belleville Rd., Belleville
Carney, F. V....208½ S. Riverside St., St. Clair
Cleland, William D....208 Sperry Bldg., Port Huron
Clifford, Robert P....St. Clair
Clyne, B. C....Yale
Cooper, T. H....911 Lapeer Ave., Port Huron
Dickelmann, Lorin E....Port Huron
Fitzgerald, E. W....207 Fox Bldg., Port Huron
Gholz, A. C....208 Sperry Bldg., Port Huron
Gilmore, John R....317 Mich. Nat. Bank Bldg., Port Huron
Gobeille, Alfred B....1201 St. Clair River Dr., Algonac
Hazledine, Herbert J....301 Mich. Nat. Bank Bldg., Port Huron
Holcomb, R. J....Marine City
Hoyt, Charles N....901 Sixth St., Port Huron
Kahn, Oscar B....Capac
Kesl, George M....317 Sperry Bldg., Port Huron
Koch, D. A....4802 Lakeshore Rd., Port Huron
Lauridsen, James....361 Guernsey St., Roslindale, Mass.
Le Galley, Kenneth B....1010 Griswold, Port Huron
Licker, R. R....525 Court St., Port Huron
Ludwig, Claude A....916 Seventh St., Port Huron
Ludwig, F. E....916 Seventh St., Port Huron
Martin, Clyde S....205 Sperry Bldg., Port Huron
McColl, D. J. (E)....312 Sperry Bldg., Port Huron
McCoy, Leslie F....902 Tenth Ave., Port Huron
Meredith, E. W....1102 6th St., Port Huron
Novak, Walter S....313½ Huron Ave., Port Huron
Patterson, D. Webster....622 Huron Ave., Port Huron
Pollock, D. A....140 S. Main St., Yale
Sanderson, Joseph L....515 Pine St., Port Huron
Schaefer, W. A....Michigan Nat. Bank Bldg., Port Huron
Sites, E. C....Michigan National Bank Bldg., Port Huron
Thomas, C. F....Sperry Bldg., Port Huron
Tisdel, James H....Port Huron
Townley, Charles O....Port Huron
Treadgold, Douglas....1323 Military St., Port Huron
Ulmer, Arthur H....Port Huron
Vroman, M. E. (R)....520 White St., Port Huron
Ware, John R....3107 24th St., Port Huron
Wass, Henry C....St. Clair
Wetzel, John O....400 Michigan Nat. Bank Bldg., Port Huron
Wilson, N. R....361 S. Water St., Marine City

St. Joseph County

Berg, Lawrence A....400 S. Fourth St.
Blood, J. V....617 S. Main, Three Rivers
Braham, Wilbur G....105 Lakeview, Sturgis
Brunson, Allen E....104 S. Clay, Sturgis
Cook, E. A....707 Portage Ave., Three Rivers
Fiegel, Samuel A....500 Michigan, Sturgis
Fortner, Roscoe J....218 East St., Three Rivers
Gillespie, Eleanor M....104 W. Chicago, Sturgis
Lepard, Olin....606 East Chicago, Sturgis
Miller, Charles G....106 W. Chicago Rd., Sturgis
O'Dell, C. W....226 East St., Three Rivers
O'Dell, J. H....226 East St., Three Rivers
Olney, Harold E....Leonidas
Parrish, M. F....120 S. Nottawa, Sturgis
Pennington, Harry C....118 S. Kalamazoo, White Pigeon
Penzotti, S. C....402 Constantine, Three Rivers
Porter, C. G....303 N. Main, Three Rivers
Reed, Fred R....49½ North Main, Three Rivers
Shaw, G. D....RFD No. 2, Three Rivers
Sheldon, John P....104 S. Clay, Sturgis
Slote, Leal K. (E)....157 S. Washington, Constantine
Springer, R. A....Centreville
Sweetland, George J....240 W. Second, Constantine
Zimont, Raymond D....100 S. Washington, Constantine

Sanilac County

Bennett, William G....Brown City
Blanchard, Ernest W....Deckerville
Cripps, James....Marlette
Ford, Frances A....Applegate
Gift, Weldon A....Marlette
Hart, Robert K....Howard St., Croswell
McCrea, John W....Marlette
McGunegle, K. T....Sandusky
Muir, Neil....Croswell
Seager, M. Cole....Brown City
Tweedie, G. Evans....Sandusky
Tweedie, S. Martin....Sandusky
Webster, John C....Marlette

Shiawassee County

Arnold, Alfred L., Jr....203 N. Cedar St., Owosso
Brown, Richard C....113 E. Williams, Owosso
Brown, Richard J....113 E. Williams, Owosso
Buzzard, Walter D....Chesaning
Chipman, E. M....502 W. Williams, Owosso
Dillon, Thomas J....Perry
Graves, James H....113 E. Williams, Owosso
Hambly, S. B....Morrice
Harkness, C. A....402 N. Park, Owosso
Hoshal, Verne L....Durand
Hume, Arthur M. (E)....224 N. Ball, Owosso
Janci, Julius S....213 E. Mason, Owosso
McKnight, Edwin R....320 N. Washington Ave., Owosso
Merz, Walter L....224 N. Ball St., Owosso
Mitchell, A. B....County Health Dept., Corunna
Parker, Walter T....Matthews Building, Owosso
Pochert, Rolland C....1254 N. Shiawassee, Owosso
Richards, Chester J....Durand
Sahlmark, Joseph F....812 Bradley, Owosso
Shepherd, W. F....Matthews Bldg., Owosso
Watts, Fred A. (E)....108 W. Exchange St., Owosso
Weinkauf, William F....Corunna
Weston, Claude L....1306 N. Washington St., Owosso

Tuscola County

Adams, Dewitt....State Hospital, Caro
Ballard, James H....Cass City
Barbour, Harry A....Mayville
Bates, George (E)....Kingston
Cook, Raymond....Akron
Dickerson, Willard W....Caro State Hospital, Caro
Dixon, Robert L. (L)....228 W. Bush St., Caro
Donahue, Harold T....Cass City
Flett, Richard O....Millington
Gugino, Frank J....Reese
Howlett, R. R....624 W. Frank St., Caro
Kaven, G. H. (L)....Unionville
Merrill, Elmer H....South State St., Caro
Morris, Frank L....Cass City
Nigg, H. L....Caro
Pelczar, Walter E....Unionville
Savage, Lloyd L....General Delivery, Caro
Swanson, E. C....Vassar
Von Renner, Otto (L)....Vassar

Van Buren County

Boothby, Carl F....Hartford
Boothby, F. M....Lawrence
Boothby, Paul R....Lawrence
Bope, William P. (E)....Decatur
Copeland, Evan L....Decatur
Diephuis, Bert....South Haven
Gano, Avison....Bangor
Giffen, John R. (E)....Bangor
Greenman, Newton H. (R)....Decatur
Hoyt, W. F. (E)....Paw Paw
Itzen, J. F....South Haven
Kleber, John A....South Haven
McFadden, R. I....Bloomingdale
Penoyar, C. L....South Haven
Ralyea, John R....Paw Paw
Spalding, R. W....Gobles
Staggs, Adelbert....Hartford
Steele, Arthur H....Paw Paw
Ten Houten, Charles....Paw Paw
Terwilliger, Edwin H....Bank of South Haven Bldg., South Haven
Young, William R....Lawton

Washtenaw County

Adcock, John D....University Hosp., Ann Arbor
Adler, R. H. (A)....University Hosp., Ann Arbor
Alexander, John....788 Arlington Blvd., Ann Arbor
Allen, Arthur W....5 Harvard Place, Ann Arbor
Astler, V. B. (A)....University Hosp., Ann Arbor
Atchison, Russell M....501 Dunlap W., Northville
Badgley, C. E....University Hosp., Ann Arbor
Balice, F. W. (A)....117 N. Third St., West Branch
Barker, Paul S....University Hosp., Ann Arbor
Barlow, R. Craig (A)....St. Joseph Mercy Hosp., Ann Arbor
Barnwell, John B....Rm. 870, Vets Admin. Bldg., Vermont Ave. at H. St. N.W., Washington 25, D. C.
Barss, Harold D....133 W. Michigan Ave., Ypsilanti
Barss, William A....133 W. Michigan Ave., Ypsilanti
Bass, Thomas J....601 Armstrong, Ypsilanti
Bassett, Robert C....University Hosp., Ann Arbor

Bassow, Paul H.....406 First Nat. Bldg., Ann Arbor
Bauer, Gerhard H.....505 First Nat. Bldg., Ann Arbor
Bauer, Jere M.....University Hosp., Ann Arbor
Baugh, Richard H.....32 N. Washington St., Ypsilanti
Bazar, Paul (A).....University Hosp., Ann Arbor
Beebe, Hugh M.....St. Joseph's Mercy Hosp., Ann Arbor
Behrman, S. J. (A).....University Hosp., Ann Arbor
Beierwaltes, William H.....Dept. of Internal Med., Univ. Hosp., Ann Arbor
Bell, Margaret.....15 Geddes Heights, Ann Arbor
Belser, Walter.....115½ E. Liberty St., Ann Arbor
Benz, Alvin H.....709 Wolverine Bldg., Ann Arbor
Bethel, Frank H.....Simpson Mem. Inst., Ann Arbor
Botch, E. S. (A).....St. Joseph's Mercy Hosp., Ann Arbor
Brace, William M.....University Health Service, Ann Arbor
Brown, Earle O., Jr.....Ypsilanti State Hosp., Ypsilanti
Brown, P. N., Med Supt.....Northville State Hosp., Northville
Bryant, Henry C.....University Hosp., Ann Arbor
Bryant, Milton F., Jr. (A).....University Hosp., Ann Arbor
Buxton, Robert W.....University Hosp., Ann Arbor
Caldwell, James L. (A).....University Hosp., Ann Arbor
Callander, C. G. (A).....University Hosp., Ann Arbor
Calley, Clifford R. (A).....University Hospital, Ann Arbor
Camp, Carl D. (L).....304 S. State St., Ann Arbor
Campbell, D. A.....St. Joseph's Mercy Hosp., Ann Arbor
Campbell, F. P. (A).....Mare Island Naval Hosp., Mare Island, Cal.
Carr, E. S.....University Hosp., Ann Arbor
Clay, Joel W. (A).....St. Joseph's Mercy Hosp., Ann Arbor
Clements, Glenn T.....106 E. Liberty St., Ann Arbor
Clunas, V. F. (A).....St. Joseph's Mercy Hosp., Ann Arbor
Clyde, Ensign E.....982 W. Ann Arbor Trail, Plymouth
Coller, Frederick A.....University Hosp., Ann Arbor
Congdon, Charles C. (A).....University Hosp., Ann Arbor
Conn, Jerome W.....University Hosp., Ann Arbor
Crenshaw, John C. (A).....University Hosp., Ann Arbor
Crook, Clarence E.....200 N. Ingalls, Ann Arbor
Cummings, Howard H.....216 S. State St., Ann Arbor
Curtis, Arthur C.....511 First Nat. Bldg., Ann Arbor
Dalley, C. W. (A).....Ypsilanti State Hosp., Ypsilanti
DeJong, Russell N.....University Hosp., Ann Arbor
DeLong, Robert E. (A).....University Hosp., Ann Arbor
Denton, Cleveland R. (A).....University Hosp., Ann Arbor
DeTar, John H. (A).....1638 Oxford Rd., Charlottesville, Va.
DeTar, John S.....Milan
DeWeese, Marion S.....Dept. of Surg., Univ. Hosp., Ann Arbor
Dingman, Reed O.....221 N. Ingalls, Ann Arbor
Dolfin, Wilbur E.....2107 Devonshire, Ann Arbor
Donaldson, Sam W.....St. Joseph's Mercy Hosp., Ann Arbor
Doorn, H. A.....1110 Miner St., Ann Arbor
Drazek, J. A. (A).....University Hosp., Ann Arbor
Duff, Ivan F.....University Hosp., Ann Arbor
Edwards, Aaron R.....916 Church St., Ann Arbor
Edwards, R. M. (M).....114 Second Ave. N., Seattle, Wash.
Elliott, L. D.....19 N. Washington, Ypsilanti
Engelke, Otto K.....c/o Washtenaw County Health Dept., 720 E. Catherine St., Ann Arbor
English, D. C. (A).....University Hosp., Ann Arbor
Erlich, Philip (A).....University Hosp., Ann Arbor
Evans, Tommy N. (A).....University Hosp., Ann Arbor
Everett, Meldon.....University Health Service, Ann Arbor
Fajans, Stefan S. (A).....University Hosp., Ann Arbor
Falls, Harold F.....408 First Nat. Bldg., Ann Arbor
Figley, Melvin M. (A).....University Hosp., Ann Arbor
Fink, George C.....411 N. Ingalls, Ann Arbor
Fischoff, Joseph (M).....University Hosp., Ann Arbor
Fish, J. C. (A).....University Hosp., Ann Arbor
Fisher, Joseph V.....Chelsea
Forrer, G. R. (A).....610 Griswold Bldg., Detroit
Forsythe, Warren E.....University Health Service, Ann Arbor
Fralick, F. Bruce.....408 First Nat'l Bldg.
Francis, Thomas, Jr.....School of Public Health, Univ. of Mich., Ann Arbor
French, A. James.....University Hosp., Ann Arbor
Frost, Lyle W.....23B North Washington, Ypsilanti
Frye, Carl H.....301 N. Ingalls St., Ann Arbor
Furstenberg, Albert C.....800 First Nat. Bank Bldg., Ann Arbor
Ganzhorn, Edwin C.....309 S. Main St., Ann Arbor
Gardner, M. L. (A).....University Hosp., Ann Arbor
Gates, Neil A., Jr.....215A S. Main Ave., Ann Arbor
Gignac, Ralph M.....32320 Michigan Ave., Wayne
Glas, Wayne W. (M).....2753 Parkwood, East Ann Arbor
Gotz, Alexander.....St. Joseph's Mercy Hospital, Ann Arbor
Gould, Stuart M., Jr. (M).....University Hospital, Ann Arbor
Grawn, Frank A.....604 Pearl St., Ypsilanti
Grillo, S. Phillip.....265 Main St., Belleville
Gulde, Andros (L).....Chelsea
Gullen, R. L. (M).....3009 W. 19th, Apt. 107, Phoenix, Arizona
Haas, Reynold L.....University of Mich. Hosp., Ann Arbor
Hagerman, George W.....321 N. Ingalls St., Ann Arbor
Haight, Cameron.....1313 E. Ann, Ann Arbor
Haley, R. R. (A).....University Hosp., Ann Arbor
Hall, Cameron B. (A).....University Hosp., Ann Arbor
Hammond, W. W.....905 W. Ann Arbor Trail, Plymouth
Handorf, Heinrich H.....Penniman-Allen Theater Bldg., Northville
Hannum, M. R.....54 W. Maine, Milan
Harris, Bradley M.....220 Pearl St., Ypsilanti
Harris, Scott T.....220 Pearl St., Ypsilanti
Hart, R. H. (A).....University Hosp., Ann Arbor
Henderson, John W.....408 First Nat. Bldg., Ann Arbor
Hendrickson, W. J. (A).....University Hosp., Ann Arbor
Hendrix, R. C. (A).....University Hosp., Ann Arbor
Henry, L. Dell.....118 N. State St., Ann Arbor
Himler, Leonard E.....Mercywood Hosp., Ann Arbor
Hodges, Fred J.....University Hosp., Ann Arbor
Holt, John F.....University Hosp., Ann Arbor
Hoobler, Sibley W.....1025 Baldwin Ave., Ann Arbor
House, Frederic B.....St. Joseph Mercy Hosp., 326 N. Ingalls St., Ann Arbor
Howard, H. E. (A).....University Hosp., Ann Arbor
Howard, S. C.....1511 W. Stadium Blvd., Ann Arbor
Hume, Henry R., Jr. (A).....University Hosp., Ann Arbor
Hume, R. H. (A).....University Hosp., Ann Arbor
Jacob, Joseph S.....410-11 Wolverine Bldg., Ann Arbor
Jimenez, Buenaventura.....2325 Devonshire Rd., Ann Arbor
Johnson, Walter R. (A).....University Hosp., Ann Arbor
Johnston, Franklin D.....University Hosp., Ann Arbor
Juracsek, Valeria R.....912 E. Ann, Ann Arbor
Juzek, Robert H. (A).....University Hosp., Ann Arbor
Keats, T. E. (M).....University Hosp., Ann Arbor
Keene, Clifford H.....Kraiser-Frazer, Willow Run
Kemper, John W.....University Hosp., Ann Arbor
Kenfield, W. J. (A).....Kaiser-Frazer, Willow Run
Kenney, J. A., Jr. (A).....University Hosp., Ann Arbor
Kern, W. H.....2011 Middlebelt Rd., Garden City
Knoll, Leo A.....2002 Scottwood, Ann Arbor
LaCore, Ivan A.....Ypsilanti State Hosp., Ypsilanti
LaFever, Sidney L.....St. Joseph's Mercy Hosp., Ann Arbor
Lampe, Isadore.....University Hosp., Ann Arbor
Lapides, Jack (A).....University Hosp., Ann Arbor
Latourette, Howard (A).....University Hosp., Ann Arbor
Law, John L.....302 S. State St., Ann Arbor
Lawrence, L. F. (A).....Ypsilanti State Hosp., Ypsilanti
Lichty, Dorman E.....419 First Nat. Bank Bldg., 9nn Arbor
Linman, J. W. (A).....University Hosp., Ann Arbor
Ludwig, James B. (A).....University Hosp., Ann Arbor
Lueken, Harold D. (A).....St. Joseph Mercy Hosp., Ann Arbor
MacIntyre, Robert S.....University Hosp., Ann Arbor
Magee, Kenneth R. (A).....University Hosp., Ann Arbor
Magielski, John E. (A).....University Hosp., Ann Arbor
Maire, Lewis E. (A).....Dexter
Malcolm, Karl D.....311 N. Ingalls, Ann Arbor
Maley, John E.....P. O. Box 425, Ann Arbor
Mannix, E. P., Jr. (A).....University Hosp., Ann Arbor
Marshall, Mark (L).....St. Joseph's Mercy Hosp., Ann Arbor
Martin, Donald W.....11 Savings Bank Bldg., Ypsilanti
Mason, S. C., III (A).....Ypsilanti State Hosp., Ypsilanti
Mathews, Kenneth P.....University Hosp., Ann Arbor
Maxwell, James H.....University Hosp., Ann Arbor
McEachern, Thomas H.....1130 Hill St., Ann Arbor
McHale, Josiah A. (A).....St. Joseph Mercy Hosp., Ann Arbor
McWilliams, J. Robert (M).....University Hosp., Ann Arbor
Mead, P. A. (A).....University Hosp., Ann Arbor
Meyers, Muriel C.....Simpson Memorial Hosp., Ann Arbor
Milford, Albert F.....32 N. Washington St., Ypsilanti
Miller, Harold A.....201 S. Ann Arbor St., Saline
Miller, Norman F.....University Hosp., Ann Arbor
Miller, R. E. (A).....University Hosp., Ann Arbor
Moore, K. B.....Ypsilanti State Hosp., Ypsilanti
Moore, S. A. (A).....University Hosp., Ann Arbor
Muehlig, George F.....St. Joseph Mercy Hosp., Ann Arbor
Myers, Dean W. (E).....317 S. State St., Ann Arbor
Nelson, M. C. (M).....United States Hosp., Fort Knox, Ky.
Nesbit, Reed M.....2119 Melrose Ave., Ann Arbor
Newton, Charles W., Jr.....115½ E. Liberty St., Ann Arbor
Obenauf, Walter H.....Ypsilanti State Hosp., Ypsilanti
O'Connor, Sylvester J.....University Hosp., Ann Arbor
Oliphant, L. W. (L).....Barton Shore Dr., Ann Arbor
Orebaugh, John E. (A).....University Hosp., Ann Arbor
Overy, Donald C. (A).....University Hosp., Ann Arbor
Parker, Willard (A).....University Hosp., Ann Arbor
Parnall, Christopher G.....309 1st Nat. Bank Bldg., Ann Arbor
Patterson, R. M.....2107 Devonshire Road, Ann Arbor
Pollard, H. Marvin.....University Hosp., Ann Arbor
Potter, Marcia.....318 W. Cross St., Ypsilanti
Price, Helen F.....103 S. W. Trick Bldg., Ann Arbor
Prout, Gordon J.....Saline
Rabinovitch, Bella.....Ypsilanti State Hosp., Ypsilanti
Range, R. L. (A).....University Hosp., Ann Arbor
Ransom, Henry K.....1402 Washington Heights, Ann Arbor
Raphael, Theophile.....University Health Service, Ann Arbor
Ratliff, Rigdon K.....St. Joseph Mercy Hosp., Ann Arbor
Rees, Robert M. (A).....University Hospital, Ann Arbor
Reichert, R. E., Jr. (A).....University Hosp., Ann Arbor
Reid, J. R. (A).....University Hosp., Ann Arbor
Riecker, H. H.....St. Joseph's Mercy Hosp., Ann Arbor
Riggs, Harold W.....St. Joseph's Mercy Hosp., Ann Arbor
Robinson, Fred W. (A).....University Hosp., Ann Arbor
Robinson, William D.....University Hosp., Ann Arbor
Rogers, R. J. (A).....University Hosp., Ann Arbor
Ross, C. Howard.....715 University Ave., Ann Arbor
Saunders, Allen.....820 Catherine St., Ann Arbor
Sayles, David J. (A).....University Hosp., Ann Arbor
Savre, George S.....220 Pearl St., Ypsilanti
Schlacht, G. F.....37064 Goddard Road, Romulus
Schneider, R. C.....University Hosp., Ann Arbor
Schoch, Henry K., Jr. (A).....University Hosp., Ann Arbor
Schumacker, William E.....303 First Nat. Bldg., Ann Arbor
Scovill, Henry A.....107 Washtenaw Ave., Ypsilanti
Seime, Reuben I.....302 W. Cross St., Ypsilanti
Shaw, J. M. (M).....University Hosp., Ann Arbor
Sheldon, John M.....University Hosp., Ann Arbor
Sink, Emory W.....725 N. University, Ann Arbor
Slenger, Walworth R.....1027 Ferdon Rd., Ann Arbor
Smith, Eleanor.....202 Michigan Theatre Bldg., Ann Arbor
Smith, R. F. (A).....1007 W. Cross St., Ypsilanti
Sparling, Irene M.....251 E. Main St., Northville

Steenrod, W. J., Jr. (A)....University Hosp., Ann Arbor
Stocker, Marvin L....116 N. Adams St., Ypsilanti
Stow, Robert M. (A)....University Hosp., Ann Arbor
Struthers, J. N. P....310 S. Huron, Ypsilanti
Sturgis, Cyrus C....Simpson Memorial Institute, Ann Arbor
Sundwall, John (L)....School of Public Health, Univ. of Michigan, Ann Arbor
Sutherland, D. A., 1st Lt. (A)....11739 4th Ave. N.W., Seattle, Wn.
Swank, Helen S....University Health Service, Univ. of Michigan, Ann Arbor
Taylor, J. N. (A)....University Hosp., Ann Arbor
Teed, Reed W....215 S. Main, Ann Arbor
Thieme, E. Thurston....St. Joseph's Mercy Hosp., Ann Arbor
Thirlby, Richard L. (A)....University Hosp., Ann Arbor
Thompson, A. S....Cook County Hosp., Chicago, Ill.
Thompson, G. R. (A)....University Hosp., Ann Arbor
Thompson, Robert F. (A)....St. Joseph's Mercy Hosp., Ann Arbor
Towsley, Harry A....University Hosp., Ann Arbor
Treat, D. F. (A)....University Hosp., Ann Arbor
Tupper, Charles J. (A)....University Hosp., Ann Arbor
VanDuzen, V. L....600 W. Cross St., Ypsilanti
Waggoner, Raymond W....University Hosp., Ann Arbor
Waldron, Alexander M....1130 Hill St., Ann Arbor
Ward, C. H. (M)....NAS, Pensacola, Florida
Washburne, Charles L. (L)....St. Joseph's Mercy Hosp., Ann Arbor
Watson, Ernest H....280 Barton Drive N., Ann Arbor
Weinbaum, Jack G....2388 Yost Blvd., Ann Arbor
Weisheit, H. R....Residence A., Fed. Correctional, Milan
Wessinger, John A. (E)....339 E. Washington, Ann Arbor
Westcott, George W....511 W. Michigan, Ypsilanti
Westerberg, Martha R....University Hosp., Ann Arbor
Westover, Charles J....982 W. Ann Arbor Trail, Plymouth
Wetterstroem, R. G....501 W. Dunlap St., Northville
Wile, Udo J....511 First Nat. Bank Bldg., Ann Arbor
Wille, Warren S....Ypsilanti State Hospital, Ypsilanti
Williams, Howard R....200 N. Ingalls, Ann Arbor
Williamson, Frederick B....319 W. Michigan, Ypsilanti
Wilner, Warren K., Jr....University Hosp., Ann Arbor
Wilson, James L....University Hosp., Ann Arbor
Wisdom, Inez R....107 S. W. Trick Bldg., Ann Arbor
Wollum, Arnold (A)....University Hospital, Ann Arbor
Woods, J. J....19 N. Washington, Ypsilanti
Worth, Melissa H....15 N. Adams St., Ypsilanti
Wright, P. E....Leland Sanatorium, Ypsilanti
Wright, Walter J. (E)....133 W. Michigan, Ypsilanti
Wylie, William C. (L)....Dexter
Yoder, O. R....Ypsilanti State Hosp., Ypsilanti
Zaugg, Frederick B. (A)....University Hospital, Ann Arbor
Zawacki, Sigmund G....St. Joseph's Mercy Hospital, Ann Arbor
Zerbi, Victor M....1711 Stamford, Willow Run

Wexford-Missaukee Counties

Daugharty, Robert V....115 S. Mitchell St., Cadillac
Holm, Augustus....LeRoy
Inman, J. C....Lake City
Lomman, Ralph G....Manton
Merritt, C. E....Manton
Moore, Gregory P....115 S. Mitchell St., Cadillac
Murphy, M. R....Granite Bldg., Cadillac
Paye, Philip....Mercy Hospital, Cadillac
Purdy, Calvin S....Buckley
Smith, Fred R....James Bogg Bldg., Lake City
Smith, Wallace J....East Harris St., Cadillac
Stokes, William H....Lake City
Tornberg, Gordon C....124 E. Case St., Cadillac
Youngman, Douglas....Marion

Wayne County

Aaron, Charles D. (E)....Tuller Hotel, Detroit
Abruzzo, Anthony M....Wayne Co. Gen. Hosp., Eloise
Adamian, Gerald....10 Peterboro, Detroit
Adams, James R....14741 Michigan Ave., Dearborn
Adelson, Sidney L....76 W. Adams St., Detroit
Adler, Sidney....872 Fisher Bldg., Detroit
Agnew, George H....559 Fisher Bldg., Detroit
Aiuto, James J....1004 Maccabees Bldg., Detroit
Akroyd, Cecil....3841 Junction, Detroit
Alderman, R. F....16880 Gilchrist St., Detroit
Albrecht, Herman F....877 Chicago Blvd., Detroit
Aldrich, E. Gordon....14239 Chandler Park Dr., Detroit
Alexander, Eugene J....Henry Ford Hospital, Detroit
Allen, John V....1336 Southfield, Detroit
Alles, Russell W....968 Fisher Bldg., Detroit
Allison, Herbert C....80 Kercheval, Grosse Pointe Farms
Alper, Louis....19120 Snowden Ave., Detroit
Alpern, Elliott B....2840 W. 7 Mile Road, Detroit
Alpiner, Sam....19009 Conant, Detroit
Altman, Raphael....1052 Maccabees Bldg., Detroit
Altshuler, Abraham M....508 Fox Theater Bldg., Detroit
Altshuler, C. H....Wayne Co. Gen. Hosp., Eloise
Altshuler, Ira M....512 Fox Theater Bldg., Detroit
Amos, Thomas G....201 Curtis Bldg., Detroit
Anderson, Bruce (E)....2579 Silver Lake Rd., Pontiac
Anderson, C. P....23737 Edward, Dearborn
Anderson, Gordon H....13349 Michigan Ave., Dearborn
Anderson, James O....641 David Whitney Bldg., Detroit
Anderson, Walter L....5902 Jos. Campau, Detroit
Anderson, Walter T....923 David Whitney Bldg., Detroit
Andries, George H., Jr....853 Fisher Bldg., Detroit
Andries, Raymond C....1737 David Whitney Bldg., Detroit
Ankley, Jerome W....8331 Mack Ave., Detroit
Annessa, Domenico M....3536 Burns, Detroit
Anslow, Robert E....10 Peterboro St., Detroit
Appelman, Howard B....1014 David Broderick Tower, Detroit
Archambault, Henry....1076 Maccabees Bldg., Detroit
Arehart, Burke W....17600 Harper Ave., Detroit
Arent, John G....20526 Grand River, Detroit
Arminski, Thomas C....1314 Maccabees Bldg., Detroit
Armstrong, Arthur G....530 Fisher Bldg., Detroit
Armstrong, M. J....15125 Grand River, Detroit
Arnold, Effie....10 Peterboro, Detroit
Aronstam, Noah E. (E)....654 Maccabees Bldg., Detroit
Arrington, Robyn J....7811 Oakland, Detroit
Ascher, Meyer S....942 Maccabees Bldg., Detroit
Ashe, Robert M....10573 W. Jefferson, River Rouge
Ashe, Stilson R....8031 W. Vernor Highway, Detroit
Ashley, L. Byron....113 Martin Place, Detroit
Ashton, F. B. (L)....18 Winona Ave., Highland Park
Asselin, Dean R....1208 David Whitney Bldg., Detroit
Asselin, Regis F....14935 E. Warren, Detroit
Athay, Roland M....Eloise Hospital, Eloise
Atler, L. R....681 W. Forest, Detroit
Auble, Max E....2501 W. Grand Blvd., Detroit
August, Harry E....1242 Maccabees Bldg., Detroit
Auld, Douglas V....275 W. Grand Blvd., Detroit
Avrin, Ira....9105 Hamilton, Detroit
Axelrod, A. R....15920 Linwood, Detroit
Axelson, A. U....7310 Grand River Ave., Detroit
Babcock, Kenneth B....Grace Hospital, Detroit
Babcock, Lloyd K....16420 Schoolcraft, Detroit
Babcock, Myra E....7 Poplar Park, Pleasant Ridge
Babcock, Warren F....868 Fisher Bldg., Detroit
Bach, Walter F....5419 Livernois, Detroit
Bachman, Morris E....569 Fisher Bldg., Detroit
Bacon, Vinton A....4819 W. Fort St., Detroit
Bader, Benjamin H....5210 Third Ave., Detroit
Baer, George J....707 David Whitney Bldg., Detroit
Baer, Raymond B....7815 E. Jefferson, Detroit
Bagley, Harry E....12922 W. Warren Ave., Detroit
Bailey, Carl C....9203 Grand River, Detroit
Bailey, Don A....12897 Woodward Ave., Detroit
Bailey, L. J....620 Vinewood Ave., Birmingham
Bailey, William A....22671 Garrison, Apt. 203, Dearborn
Baker, Clarence....19182 Patton Ave., Detroit
Bakst, Joseph....10 W. Warren, Detroit
Balaga, Frank T....9701 Jos. Campau, Detroit
Balberor, Harry....1404 David Broderick Tower, Detroit
Balcerski, Matthew A....10 Peterboro, Detroit
Balser, Charles W....13931 Gratiot, Detroit
Baltz, James I....Henry Ford Hosp., Detroit
Baranowski, A. W....15841 W. Warren, Detroit
Barbaglia, Louis C....16378 Harper, Detroit
Barber, Radivoj....504 S. Main St., Plymouth
Barenholtz, Beniamin....674 Maccabees Bldg., Detroit
Barland, Oscar L....8703 Oakland, Detroit
Barnes, Donald J....564 Fisher Bldg., Detroit
Barnes, Van. D....Vet. Hosp., Dearborn
Barnett, Edwin D....Harper Hospital, Detroit
Barnett, L. L....1806 David Broderick Tower, Detroit
Barnett, Saul E....744-6 Lathrop, Detroit
Barrett, Wyman D....311 David Whitney Bldg., Detroit
Barron, James....Henry Ford Hospital, Detroit
Barron, William H....14938 Livernois, Detroit
Bartemeier, Leo H....8-259 General Motors Bldg., Detroit
Barton, Joseph R....7503 W. Warren, Detroit
Bassett, Louis....Detroit Receiving Hospital, Detroit
Batchelor, T. M....7600 John R, Detroit
Bates, Gaylord S....Veterans Admin. Hospital, Dearborn
Bauer, Benedict J....7615 Dexter Blvd., Detroit
Bauer, A. Robert....19268 Grand River, Detroit
Bauer, Lester Eugene....859 Fisher Bldg., Detroit
Baumer, Moe....18327 Wildemere, Detroit
Baumgarten, Elden C....8045 E. Jefferson, Detroit
Beach, Watson....742 Maccabees Bldg., Detroit
Beam, A. Duane....85 Kercheval, Detroit
Beamer, George D....13810 Michigan Ave., Dearborn
Beattie, Robert (L)....1229 David Whitney Bldg., Detroit
Beaver, Donald C....432 E. Hancock, Detroit
Beavers, Robert....2043 McDouglall, Detroit
Becker, Abraham....1414 David Broderick Tower, Detroit
Becker, J. W....950 Maccabees Bldg., Detroit
Becklein, Clarence L....14351 E. Warren Ave., Detroit
Beckwith, Carl C....15625 Twelfth St., Detroit
Beckwitt, Morris C....865 Fisher Bldg., Detroit
Bedell, Archie A....15643 Mack Ave., Detroit
Beers, Morrison D....1713 David Whitney Bldg., Detroit
Beeuwkes, L. E....12922 W. Warren, Dearborn
Behn, Claud W....1546 David Whitney Bldg., Detroit
Beigler, Sydney K....513 David Whitney Bldg., Detroit
Beitman, Max R....510 Kales Bldg., Detroit
Belanger, Henri (E)....10593 W. Jefferson, River Rouge
Belanger, William George....Harper Hospital, Detroit

Belisle, John A.....Wayne Co. Gn'l. Hosp., Eloise
Bell, J. Kenner.....1654 First Nat. Bank Bldg., Detroit
Bell, William M.....11926 Indiana St., Detroit
Bennett, Germany E.....5144 Hastings, Detroit
Bennett, Harry B.....942 Maccabees Bldg., Detroit
Bennett, Sanford A.....17904 John R St., Detroit
Bennett, Wm. E.....12897 Woodward, Detroit
Bennett, Zina B.....Michigan Mutual Hosp., 2730 E. Jefferson St., Detroit
Benson, Clifford D.....1515 David Whitney Bldg., Detroit
Benson, Davis A.....3706 Sturtevant, Detroit
Benson, Virginia M.....16238 Snowden, Detroit
Bentley, Frederick E.....861 Penniman Bldg., Plymouth
Bentley, Neil I.....1166 David Whitney Bldg., Detroit
Berge, Clarence A.....14309 E. Jefferson, Detroit
Bergman, Murray Stewart.....4400 Livernois, Detroit
Bergman, Theodore I.....16456 Woodward, Detroit
Berke, Sydney S.....3333 E. Jefferson, Detroit
Berkey, William E.....980 Whitmore Road, Detroit
Berlien, Ivan C.....3128 Union Guardian Bldg., Detroit
Berman, Lawrence.....1516 St. Antoine, Detroit
Berman, Robert.....1304 David Broderick Tower, Detroit
Berman, Sidney L.....60 W. Hancock, Detroit
Bernard, Walter G.....13002 E. Jefferson Ave., Detroit
Bernbaum, Bernard.....922 Maccabees Bldg., Detroit
Bernstein, Albert E.....80 Delaware Ave., Detroit
Bernstein, Samuel S.....18200 Wyoming, Detroit
Berry, Jos. E.....18268 Grand River, Detroit
Besancon, J. H.....12621 Northlawn, Detroit
Best, T. H. Edward.....9221 E. Jefferson, Detroit
Bethea, J. Hardee.....407 Kales Bldg., Detroit
Bicknell, Edgar A.....13641 Wyoming, Detroit
Bicknell, Frank B.....938 David Whitney Bldg., Detroit
Bielawski, John G.....5119 St. Lawrence Ave., Detroit
Billingslea, Thomas.....2175 E. Willis, Detroit
Birch, John R.....1010 Maccabees Bldg., Detroit
Bird, H. Waldo.....1865 Guardian Bldg., Detroit
Birkelo, Carl C.....Herman Kiefer Hospital, Taylor & Hamilton, Detroit
Birmingham, J. R.....2201 E. Jefferson, Detroit
Birndorf, Leonard.....18004 John R., Detroit
Bittker, Isadore Irving.....616 Professional Bldg., Detroit
Bittrich, Norbert M.....Providence Hospital, 2500 W 61 Blvd., Detroit
Biork, Floyd J.....14447 W. 7 Mile Rd., Detroit
Black, Perry S.....19431 Van Dyke, Detroit
Blain, Alexander W.....2201 E. Jefferson St., Detroit
Blain, Alexander W., III.....2201 E. Jefferson, Detroit
Blain, James H., Jr.....119 Kercheval, Grosse Pte.
Blaine, Max.....654 Maccabees Bldg., Detroit
Bleier, Alfred.....13015 E. Warren Ave., Detroit
Bleier, Joseph.....7504 Dexter Blvd., Detroit
Bloch, Abraham.....2935 E. Milwaukee, Detroit
Blodgett, James B.....606 Kales Bldg., Detroit
Blodgett, William E. (L).....602 Kales Bldg., Detroit
Blodgett, William H.....603 Kales Bldg., Detroit
Bloom, Arthur R.....1058 Maccabees Bldg., Detroit
Blumenthal, Franz L.....466 Fisher Bldg., Detroit
Boccaccio, John L.....16383 Harper, Detroit
Boccia, J. J.....15761 E. Warren, Detroit
Boddie, Arthur W.....2737 Chene, Detroit
Bogue, Robert E.....15819 Wyoming St., Detroit
Bogusz, Ladislaus.....Wayne Co. General Hospital, Eloise
Bohn, Z. Stephen.....327 Professional Bldg., Detroit
Bohne, A. W.....Henry Ford Hospital, Detroit
Boileau, Thornton I.....16546 Parkside, Detroit
Bolstad, Donald S.....Henry Ford Hospital, Detroit
Bookmyer, R. H.....17198 Oak Drive, Detroit
Bookstein, Abraham M.....1475 Colton, Detroit
Bornstein, Sidney.....12710 Appoline, Detroit
Bott, Edmund T.....3152 Biddle St., Wyandotte
Botvinick, Isador.....13701 W. 7 Mile Road, Detroit
Boutrous, Thomas A.....15801 W. McNichols, Detroit
Bower, Donald W.....1336 Southfield, Lincoln Park
Bower, Franklin T.....2200 Blaine, Detroit
Bowers, Leo J.....11200 W. McNichols Road, Detroit
Boyd, John H.....2615 W. Jefferson, Trenton
Boyle, A. J.....1441 Lakewood, Detroit
Bracken, Andrew H.....13102 W. Warren Ave., Dearborn
Bradfield, Horace F.....6102 Iroquois, Detroit
Bradley, George T.....1201 David Whitney Bldg., Detroit
Bradshaw, William H.....4715 St. Antoine, Detroit
Brady, Herbert A.....208 Reno Bldg., River Rouge
Braitman, Louis.....1504 David Broderick Tower, Detroit
Braley, William N.....12897 Woodward Ave., Detroit
Bramigk, F. W.....509-11 Professional Bldg., Detroit
Brand, Benjamin.....4500 Wabash Ave., Detroit
Braun, Lionel.....516 Fox Theatre Bldg., Detroit
Braverman, Morris M.....1222 Maccabees Bldg., Detroit
Breitenbecher, Edward R.....13973 Woodward, Detroit
Brekke, Viola G.....369 Glendale, Detroit
Bremer, William M.....16237 Mack Ave., Detroit
Brengle, Deane R.....760 Meridan Drive, Dearborn
Brent, Morris S.....13503 Northlawn Ave., Detroit
Brey, Norman.....1202 Maccabees Bldg., Detroit
Briegel, Walter A.....730 Maccabees Bldg., Detroit
Briggs, William J.....1202 Maccabees Bldg., Detroit
Brines, O. A.....1512 St. Antoine, Detroit
Bringard, Elmer L.....16889 James Couzens, Detroit
Brisbois, Harold J.....893 W. Ann Arbor Trail, Plymouth
Brisson, Joseph C.....9191 Whittier, Detroit
Bristol, William R.....13626 E. Seven Mile Road, Detroit
Broadman, Sylvan A.....16401 Grand River, Dertoit
Bromme, William.....10 Peterboro, Detroit
Bronson, W. W.....22128 Grand River, Detroit
Brooks, Clark D. (L).....113 Martin Place, Detroit
Brooks, Charles W.....2033 E. Davison Ave., Detroit
Brooks, Nathan.....1001 Kales Bldg., Detroit
Brosius, William L.....Harper Hospital, Detroit
Broudo, Philip H.....10 Peterboro, Detroit
Brough, Glen A.....1402 David Whitney Bldg., Detroit
Brown, Andrew G.....12065 Wyoming, Detroit
Brown, Audrey O.....742 Maccabees Bldg., Detroit
Brown, Carlton F.....1229 David Whitney Bldg., Detroit
Brown, Charles H.....3152 Biddle Ave., Wyandotte
Brown, Frances.....1940 Lincolnshire, Detroit
Brown, Gordon T.....11146 Gratiot, Detroit
Brown, Harvey F.....3714 W. McNichols Road, Detroit
Brown, Henry S.....9101 Hamilton Ave., Detroit
Brown, John R.....702 Maccabees Bldg., Detroit
Brown, Robert A.....11299 W. Jefferson, Detroit
Brown, Samuel M.....63.5 Ellsworth Ave., Detroit
Brown, Stanley H.....8544 W. McNichols Road, Detroit
Brown, Thomas A.....5501 W. Warren Ave., Detroit
Brownell, Paul G.....18916 Woodward Ave., Detroit
Bruer, E. L.....1495 Fort St., Wyandotte
Bruer, Edgar S.....11299 W. Jefferson, River Rouge
Brunk, A. S.....Rt. 1, Belle River, Ontario, Canada
Brunk, Clifford F.....7815 E. Jefferson, Detroit
Brunke, Bruno B.....7765 Mack Ave., Detroit
Brush, Brock Edwin.....2799 W. Grand Blvd., Detroit
Bryan, Donald I.....1050 Fisher Bldg., Detroit
Bryant, D. R.....621 Mott Fdtn. Bldg., Flint
Bryce, John D.....5400 Trumbull Ave., Detroit
Buchanan, William Paul.....11751 Grand River Ave., Detroit
Budson, Daniel.....1080 Fisher Bldg., Detroit
Buell, John H.....1306 David Whitney Bldg., Detroit
Buller, H. L.....4120 Fenkell Ave., Detroit
Burke, Ralph M.....742 Maccabees Bldg., Detroit
Burnham, David C.....13700 Woodward Ave., Detroit
Burns, Robert T.....16101 Harper Ave., Detroit
Burnstine, Julius Y.....45 Owen Ave., Detroit
Burnstine, Perry P.....434 W. Palmer, Detroit
Burr, George C.....1706 David Whitney Bldg., Detroit
Burr, H. Leonard.....168 Fisher Road, Grosse Pointe
Burroughs, R. G.....545 David Whitney Bldg., Detroit
Burrows, Howard A.....10423 W. Warren, Dearborn
Burstein, Harry S.....2950 W. Grand Blvd., Detroit
Burstein, I. Marvin.....2950 W. Grand Blvd., Detroit
Burstein, Morris M.....2950 W. Grand Blvd., Detroit
Burton, D. T.....54 Arden Park, Detroit
Burton, Irving F.....14624 East 7 Mile Road, Detroit
Bush, Glendon J.....7704 Dexter Blvd., Detroit
Bush, Lowell M.....18950 Woodward, Detroit
Butler, Harry J. (L).....33 Waverly, Highland Park
Butler, J. Payne.....3403 W. Warren, Detroit
Butler, Lawrence H.....7005 Harper Ave., Detroit
Butler, Volney N.....28 W. Adams, Detroit
Butterworth, Herman K.....719 Liberty Ave., Lincoln Park
Buttrum, Edward J.....14755 Fenkell, Detroit
Byers, Dudley W.....8934 Oakland Ave., Detroit
Byington, Garner M.....1151 Taylor Ave., Detroit
Cadieux, Henry W. (L).....103 E. Grand Blvd., Detroit
Cahalan, Joseph L.....1447 David Whitney Bldg., Detroit
Caldwell, George L.....12017 Joseph Campau, Detroit
Caldwell, J. Ewart.....10 Peterboro, Detroit
Calkins, H. N.....14970 Robson Ave., Detroit
Callaghan, Thomas T.....312 Professional Bldg., Detroit
Cameron, A. H.....2853 Biddle, Wyandotte
Cameron, D. A.....1410 Kales Bldg., Detroit
Campau, George H.....393 W. Grand Blvd., Detroit
Campbell, Charles A.....12922 West Warren, Dearborn
Campbell, Duncan.....9203 Grand River, Detroit
Campbell, Duncan A. (E).....1613 David Whitney Bldg., Detroit
Campbell, Kenneth N.....Blaine Hospital, Detroit
Campbell, Thelma M. Wygant.....22375 Garrison, Dearborn
Candler, C. L.....20040 Mack Ave., Grosse Pointe Woods
Canter, Allie L.....13700 Woodward Ave., Detroit
Canter, G. E.....13732 Woodward Ave., Detroit
Cantor, Meyer O.....666 Maccabees Bldg., Detroit
Cantow, L. A.....1123 David Whitney Bldg., Detroit
Capano, Oreste A.....16234 Cruse, Detroit
Caputo, Joseph M.....22575 Nona Ave., Dearborn
Caraway, Jas E.....35804 John R St., Wayne
Carbone, Louis A.....9317 Gratiot, Detroit
Carey, Cornelius (L).....9667 Gratiot Ave., Detroit
Carleton, Lawrence H.....750 Fisher Bldg., Detroit
Carlson, Harold W.....18070 Wildemere, Detroit
Carmichael, Edward K.....7815 E. Jefferson, Detroit
Carp, Joseph.....8839 Mt. Elliott, Detroit
Carpenter, Claire H.....18700 Meyer Road, Detroit
Carpenter, C. J.....3835 Biddle St., Wayne
Carpenter, William S.....1317 David Whitney Bldg., Detroit
Carr, J. G.....5181 Van Dyke, Detroit
Carroll, Elmer H.....9920 Stoepel Ave., Detroit
Carroll, Lona B.....1066 Maccabees Bldg., Detroit
Carrick, Lee.....1515 Kales Bldg., Detroit
Carson, Herman J.....7745 Puritan, Detroit
Carstens, Henry R.....3706 Manor Road, Chevy Chase, Maryland
Carter, John M.....613 David Whitney Bldg., Detroit
Carter, L. F.....613 David Whitney Bldg., Detroit
Casey, Byron L., Jr.....1865 Guardian Bldg., Detroit
Cashen, Russell M.....1751 Lawrence Ave., Apt. 307, Detroit
Cassidy, William J.....1737 David Whitney Bldg., Detroit
Castrop, Charles W.....10149 Michigan Ave., Dearborn
Catherwood, Albert E.....1337 David Whitney Bldg., Detroit

Caton, Dorothy F. ..... 17144 Oak Drive, Detroit
Caughey, Andrew F. ..... 14966 Ardmore, Detroit
Caughey, Edgar H. ..... 11301 Whittier, Detroit
Caumartin, Fred E. ..... 14900 Westwood, Detroit
Cavell, Roscoe W. ..... 10 Peterboro, Detroit
Cellar, Frank A. ..... 944 Maccabees Bldg., Detroit
Ceresko, A. R. ..... 18650 W. Warren, Detroit
Chabut, V. George ..... 206 W. Dunlap, Northville
Chall, Henry G. ..... 2941 W. McNichols, Detroit
Chapin, Sidney E. ..... 10149 Michigan Ave., Dearborn
Chapman, Aaron L. ..... 2550 Atkinson, Detroit
Chapman, Paul T. ..... 1151 Taylor Ave., Detroit
Chapnick, H. A. ..... 506 Kales Bldg., Detroit
Charleston, R. A. ..... 15174 Lasher Road, Detroit
Charnas, Sidney ..... 542 Maccabees Bldg., Detroit
Chase, Clyde H. ..... 1002 David Whitney Bldg., Detroit
Chatel, Arthur N. ..... 4927 Cadillac Ave., Detroit
Chesluk, Herman M. ..... 1312 David Broderick Tower, Detroit
Chester, William P. ..... 5057 Woodward, Detroit
Childs, George M. ..... 6505 Hamilton, Detroit
Chipman, Willard A. ..... 14920 Grand River Ave., Detroit
Chittenden, George E. ..... 7815 E. Jefferson, Detroit
Chostner, G. C. ..... 13715 Gratiot Ave., Detroit
Christensen, C. A. ..... 10149 Michigan Ave., Dearborn
Christensen, Robert C. ..... Henry Ford Hospital, Detroit
Christopher, James G. ..... Holy Cross Hospital, 4777 East Outer Drive, Detroit
Chrouch, Laurence A. ..... 18456 Grand River, Detroit
Church, A. S. ..... 10 Peterboro, Detroit
Cioffari, M. S. ..... 15361 Plymouth, Detroit
Ciprian, Joseph E. ..... 1775 E. Grand Blvd. Detroit
Clapper, Muir ..... 1512 St. Antoine. Detroit
Clark, Charles J. ..... Ford Motor Co., Dearborn
Clark, Clarence M. ..... 2605 Holbrook, Detroit
Clark, Donald V. ..... 15400 Plymouth Road, Detroit
Clark, G. E. (E) ..... Norwick, Ontario, Canada
Clark, Harold E. ..... 17198 Oak Drive, Detroit
Clark, Harry G. ..... 15361 Plymouth Road, Detroit
Clark, Ronald E. ..... 15537 Centralia, Detroit
Clarke, Norman E. ..... 2501 W. Grand Blvd., Detroit
Clarke, Robert B. ..... 1112 Kales Bldg., Detroit
Clifford, C. H. ..... 10 Peterboro, Detroit
Clifford, J. E. ..... 10 Witherell, Detroit
Clifford, Thomas P. ..... 1802 David Whitney Bldg., Detroit
Clippert, J. C. ..... Dearborn Inn, Dearborn
Coan, Glenn L. ..... 114 Maple, Wyandotte
Coates, Carl Amos ..... 21576 Michigan Ave., Dearborn
Cobane, John H. ..... 10 Peterboro, Detroit
Cochrane, Edgar G. ..... 12805 Hamilton, Detroit
Coffman, Eugene W. ..... 14807 W. McNichols Road, Detroit
Cohen, H. Herbert ..... 12700 W. 7 Miles Road, Detroit
Cohen, Lewis ..... 16861 Wyoming Ave., Detroit
Cohn, Daniel E. ..... 409 Fox Bldg., Detroit
Cohoe, Don A. ..... 13535 Woodward, Detroit
Cole, Fred H. ..... 1757 David Whitney Bldg., Detroit
Cole, James E. ..... 344 Glendale, Detroit
Cole, Wyman C. C. ..... 1077 Fisher Bldg., Detroit
Coleman, Margarete W. ..... 58 W. Adams Ave., Detroit
Coleman, William G. ..... 20526 Grand River, Redford
Collings, M. R. ..... 9201 W. Outer Dr., Detroit
Collins, James D. ..... 6334 W. Fort St., Detroit
Collins, James E. ..... 13103 W. Chicago Blvd., Detroit
Colvin, Leslie T. ..... 474 Fisher Bldg., Detroit
Colyer, Raymond G. ..... 601 Piquette, Detroit
Comfort, Milton D. ..... 28754 Seneca, Flat Rock
Comstock, Lawrence A. ..... 215 St. Joseph., Trenton
Condon, Stanley ..... 1477 Lochmoor Blvd., Gross Pointe Woods
Conley, L. C. M. ..... 99 Tuxedo, Detroit
Connelly, Richard C. ..... 1645 David Whitney Bldg., Detroit
Conner, Edward D. ..... 15778 Birwood, Detroit
Connolly, Frank ..... 5149 Joy Road, Detroit
Connolly, John P. ..... 5149 Joy Road, Detroit
Connolly, Paul J. ..... 113 Martin Place, Detroit
Conors, J. J. ..... 3546 Trumbull, Detroit
Conrad, Elmer R. ..... 716 Kales Bldg., Detroit
Constable, Canute G. ..... 453 E. Adams, Detroit
Cook, James A. ..... 1860 Ford at 19th, Wyandotte
Cook, James C. ..... Harper Hospital, Detroit
Cooksey, Warren B. ..... 62 W. Kirby, Detroit
Coolidge, M. Belle (L) ..... 808 Barrington Road, Grosse Pointe Park
Cooper, Beniamin F. ..... 10053 Gratiot St., Detroit
Cooper, Edmond L. ..... 414 David Whitney Bldg., Detroit
Cooper, James B. ..... 1241 David Whitney Bldg., Detroit
Cooper, Ralph Ruehl ..... 1515 David Whitney Bldg., Detroit
Corbeille, Catherine ..... 1050 Fisher Bldg., Detroit
Coseglia, Robert P. ..... 7962 Kercheval, Detroit
Costello, Russell T. ..... 630 Fisher Bldg., Detroit
Cotant, John F. ..... 4120 Fenkell, Detroit
Cotruro, Louis D. ..... 3640 McDougall, Detroit
Cotton, Schuyler O. ..... 2332 Carson Ave., Detroit
Coulter, William J. ..... 14827 E. Jefferson, Detroit
Courville, Charles J. ..... 1202 Maccabees Bldg., Detroit
Cowan, Wilfrid ..... 6135 Chalmers, Detroit
Cowen, Leon B. ..... 1038 Maccabees Bldg., Detroit
Cowen, Robert L. ..... 907 Stroh Bldg., Detroit
Coyle, J. E. ..... 573 Fisher Bldg., Detroit
Coyne, Douglas Ruthven ..... 7376 Grand River, Detroit
Crawford, Albert S. ..... 10864 Kingston, Huntington Woods
Crews, Thomas H. ..... 772 Fisher Bldg., Detroit
Croll, Leo J. ..... 1326 Maccabees Bldg., Detroit
Croll, Maurice ..... 1326 Maccabees Bldg., Detroit
Crook, Charles L. ..... 47 W. Grand Ave., Highland Park
Cross, Harold E. ..... 499 Sunningdale, Grosse Pointe Woods
Crossen, Henry F. ..... 902 David Whitney Bldg., Detroit
Croushore, James E. ..... 573 Fisher Bldg., Detroit
Cruikshank, Alexander (E) ..... 228 E. Grand Blvd., Detroit
Curry, F. S. ..... 3919 John R., Detroit
Curtis, Frank E. ..... 10 Peterboro, Detroit
Curtiss, William P. ..... 3181 E. Jefferson, Detroit
Cushing, Russell G. ..... 13424 Gratiot Ave., Detroit
Cusick, Paul L. ..... 1108 Stroh Bldg., Detroit
Dale, Edward C. ..... Vets. Admin., Mental Hygiene Clinic, 9th Floor, Guardian Bldg., Detroit
Dale, Esther H. ..... 1512 St. Antoine, Detroit
Dale, Mark ..... 722 Maccabees Bldg., Detroit
Danforth, James C., Jr. ..... 20175 Mack Ave., Grosse Pointe Woods
Danforth, James C., Sr. ..... 20175 Mack Ave., Grosse Pointe Woods
Danforth, Mortimer E. (L) ..... 1311 Cadillac Blvd., Detroit
Daniels, Lewis E. ..... 458 Fisher Bldg., Detroit
Darling, Charles E. ..... 673 Fisher Bldg., Detroit
Darling, Milton A. ..... 673 Fisher Bldg., Detroit
Darmstaetter, A. A. ..... 407 Kales Bldg., Detroit
Darpin, Peter H. ..... 6602 W. Fort St., Detroit
Davidson, Harry O. ..... Henry Ford Hospital, Detroit
Davies, Robert H. ..... 1633 David Whitney Bldg., Detroit
Davies, T. S. ..... 15425 Kercheval, Grosse Pointe
Davies, Windsor S. ..... 1302 Stroh Bldg., Detroit
Davis, E. F. (L) ..... 1852 17th, Wyandotte
Dawson, W. A. ..... 25951 Avondale Road, Inkster
Day, Andrew J. ..... 710 David Whitney Bldg., Detroit
Day, J. Claude ..... 703 David Whitney Bldg., Detroit
Deering, Robert J. ..... 1392 Coolidge Highway, River Rouge
Defever, Cyril R. ..... 15124 Kercheval, Detroit
Defnet, William A. ..... 1302 Stroh Bldg., Detroit
DeJongh, Edwin ..... Diesel Eng. Div. General Motors Corp., 13400 W. Outer Drive, Detroit
Delaini, Stella ..... 760 Fisher Bldg., Detroit
Delaney, James R. ..... 1020 David Whitney Bldg., Detroit
Demaray, John F. ..... 15312 Burt Road, Detroit
Dempster, James H. (L) ..... 18262 Oak Drive, Detroit
Denham, Ralph M. ..... Henry Ford Hospital, Detroit
DeNike, A. James (L) ..... 1479 E. Jefferson Ave., Detroit
Denison, Louis L. ..... 4026 W. McNichols Road, Detroit
Dennis, M. S. ..... 14001 Greenfield, Detroit
DePonio, Sylvester A. ..... 20249 Van Dyke, Detroit
Deresz, Alphonse R. ..... 6609 Van Dyke, Detroit
Derleth, Paul E. ..... 562 W. Oakridge, Ferndale
Derr, J. W. ..... 702 Maccabees Bldg., Detroit
DeSmyter, George C. ..... 15527 E. Warren, Detroit
De Spelder, Ray E. ..... 2970 W. Grand Blvd., Detroit
DeTomasi, Rome Q. ..... 1098 E. Grand Blvd., Detroit
Deuby, O. J. ..... 14477 W. 7 Mile Road, Detroit
Devine, Herbert W. ..... 1540 David Whitney Bldg., Detroit
Dibble, Harry F. ..... 1313 David Whitney Bldg., Detroit
Dickson, Leon A. ..... 5119 Milford, Detroit
Dickson, Elias L. ..... 7716 Oakland, Detroit
Diebel, Nelson W. ..... 650 Cadieux, Detroit
Dietzel, H. O. ..... 1024 W. Seven Mile Road, Detroit
Dill, Hugh L. ..... 16114 E. Warren, Detroit
Dill, J. Lewis ..... 2799 W. Grand Blvd., Detroit
DiLoreto, Panfilo C. ..... 4345 Harvard Road, Detroit
Dimond, G. E. ..... 6853 Orchard, Dearborn
Dittmer, Edwin F. ..... 14320 E. Jefferson, Detroit
Dixon, Fred W. ..... 530 N. Telegraph Road, Dearborn
Dixon, Ray S. ..... 1210 Broderick Tower, Detroit
Dixon, Robert K. ..... 2501 W. Grand Blvd., Detroit
Dodds, John C. (L) ..... 1355 David Whitney Bldg., Detroit
Dodenhoff, Chas F. ..... 791 E. Grand Blvd., Detroit
Dodrill, F. D. ..... 641 David Whitney Bldg., Detroit
Doering, Wendell ..... 968 Fisher Bldg., Detroit
Doerr, Louis E. Jr. ..... 16401 Grand River, Detroit
Dolega, Stanley F. ..... 12870 E. Jefferson, Detroit
Dolman, E. Nesbitt ..... 3605 Third Ave., Detroit
Domzalski, Casimer A. ..... 5361 McDougall, Detroit
Donald, Douglas ..... 7815 E. Jefferson, Detroit
Dondanville, Joseph M. ..... Henry Ford Hospital, Detroit
Donovan, Daniel R., Jr. ..... 8378 Grand River, Detroit
Donovan, Eugene T. ..... 13365 Michigan, Dearborn
Donovan, Richard S. ..... 968 Fisher Bldg., Detroit
Dorman, Jack ..... Wayne County General Hospital, Eloise
Dorsey, John M. ..... 65 Moss St., Highland Park
Doty, Chester A. ..... 1735 David Whitney Bldg., Detroit
Doub, Howard P. ..... Henry Ford Hospital, Detroit
Douglas, Clair L. ..... 405 David Whitney Bldg., Detroit
Dovitz, Benj. W. ..... 95 Martin Place, Detroit
Dowdle, Edward ..... 2501 W. Grand Blvd., Detroit
Downer, Ira G. ..... 8445 E. Jefferson Ave., Detroit
Downes, George O. ..... 8007 Harper, Detroit
Doyle, George H. ..... 5543 W. Warren, Detroit
Drake, Ellet H. ..... Henry Ford Hospital, Detroit
Drake, James J. ..... 2567 W. Grand Blvd., Detroit
Draves, Edward F. ..... 8309 Grand River, Detroit
Drews, Robert S. ..... 12500 Broadstreet, Detroit
Drinkhaus, H. I. ..... 14827 E. Jefferson, Detroit
Droock, Victor ..... 10 Peterboro, Detroit
Dubin, Joseph J. ..... 10000 W. Chicago Blvd., Detroit
Dubnove, Aaron ..... 2115 W. Grand Blvd., Detroit
DuBois, Paul W. ..... 1708 Broderick Tower, Detroit
Dubpernell, Karl (E) ..... 3525 28th St., Detroit
Dubpernell, Martin S. ..... 4019 Gilbert, Detroit
Dubpernell, Robert O. ..... 9125 Meyers Road, Detroit
Dudek, J. J. ..... 16401 Grand River, Detroit
Dundas, Edward M. ..... 4700 Schlaff, Dearborn
Dunlap, Henry A. ..... 7815 E. Jefferson Ave., Detroit
Dunlap, Samson F. ..... 9100 Oakland, Detroit
Dunn, Cornelius E. ..... 11107 Mack Ave., Detroit

Durham, Everett....904 S. Military, Dearborn
Durocher, Edmund J.,....4158 W. Jefferson, Ecorse
Dwaihy, Paul J....4526 Van Dyke, Detroit
Dwyer, Francis W....7448 Linwood, Detroit
Dziuba, John F....8559 W. Jefferson, Detroit
Eades, Charles C....863 Fisher Bldg., Detroit
Eadie, G. A....16083 Southampton, RFD 5, Plymouth
Eakins, Frederick J....Vets. Admin. Guardian Bldg., Dearborn
Easterly, Robert L....9 Saliotte Road, Ecorse
Eaton, Crosby D....462 Fisher Bldg., Detroit
Eder, Samuel J....1116 Maccabees Bldg. Detroit
Edgar, Irving I....712 Maccabees Bldg., Detroit
Edgar, Russell G....8011 W. Vernor Hgwy. Detroit
Edmonds, Gerald W....44200 W. 10 Mile Road, Northville
Edmonds, W. N....10 Peterboro, Detroit
Edmondson, Robert B....11146 Gratiot, Detroit
Edwards, Gilbert Lloyd....1841 E. Davison, Detroit
Eisman, Clarence H....1025 E. Forest Ave., Detroit
Eldredge, Edward F....412 Kales Bldg., Detroit
Ellias, Elmer P....4330 Fullerton, Detroit
Elliott, William G....4101 Fenkell, Detroit
Elman, Meyer J....14002 Woodward, Detroit
Elvidge, Robert J....659 W. Euclid Ave., Detroit
Emmert, Herman C. (L)....7303 Grandmont, Detroit
Engel, E. H....114 Maple St., Wyandotte
English, Leo Victor....4533 W. Warren, Detroit
Eno, Laurel S....1001 David Whitney Bldg., Detroit
Ensign, Dwight C....Henry Ford Hospital, Detroit
Ensing, Osborn....758 Fisher Bldg., Detroit
Epstein, S. G....6438 Van Dyke, Detroit
Erickson, Eldon W....2900 S. Fort St., Detroit
Erkfitz, Arthur W....545 David Whitney Bldg., Detroit
Erman, J. M....9225 Grand River, Detroit
Eschbach, Jos. W....936 S. Military, Dearborn
Estabrook, Bert U. (L)....850 Virginia Park, Detroit
Ettinger, Clayton J....18734 Woodward, Detroit
Evans, Jos. M....10500 E. Warren Ave., Detroit
Evans, Leland S....20953 Grand River, Redford
Evans, W. A., Jr....552 Fisher Bldg., Detroit
Evison, Emerson O....1003 Hawthorne Rd., Grosse Pointe Woods
Ewing, C. H....16545 E. Warren, Detroit
Eyres, A. E....1064 Fisher Bldg., Detroit
Fagin, Irving D....1214 Maccabees Bldg., Detroit
Falick, Mordecai Louis....960 Fisher Bldg., Detroit
Falk, Ira E....7925 W. Verner Highway, Detroit
Fallis, Lawrence S....Henry Ford Hospital, Detroit
Fandrich, Theodore S....1004 Maccabees Bldg., Detroit
Farbman, Aaron A....14515 Kercheval, Detroit
Farbman, Simon S....13300 Fenkell, Detroit
Faunce, Sherman P....8300 Kercheval, Detroit
Felcyn, W. George....4818 W. Warren Ave., Detroit
Feld, David....738 Maccabees Bldg., Detroit
Feldkamp, Lee E....9545 Grand River, Detroit
Feldman, N. L....2540 Pasedena, Detroit
Feldman, Paul....Wayne Co. General Hosp., Eloise
Feldstein, Martin Z....907 Kales Bldg., Detroit
Fellers, Ray L....6505 Grand River, Detroit
Fenech, Harold B....324 Professional Bldg., Detroit
Fenner, William G....3520 Fischer Avenue, Detroit
Fenton, Edwin H....15125 Grand River Ave., Detroit
Fenton, Meryl M....8830 W. McNichols Rd., Detroit
Fenton, Russell F....15125 Grand River Ave., Detroit
Fenton, Stanley C....15310 E. Warren St., Detroit
Ferrera, Louis V....13805 Parkgrove Ave., Detroit
Ferrara, Virginia M....18422 Woodward Ave., Detroit
Ferrell, R. D....Wayne Co. General Hosp., Eloise
Ferris, G. N....15400 Plymouth, Detroit
Fettig, Carl A. (E)....6154 W. Fort St., Detroit
Fill, Leon....1506 David Broderick Tower, Detroit
Finch, Alvis D....1447 David Whitney Bldg., Detroit
Finch, F. Sinclair....21303 Gratiot, East Detroit
Fine, Edward....1112 Kales Bldg., Detroit
Finkelstein, M. B....612 Kales Bldg., Detroit
Fischer, Frederick J....474 Fisher Bldg., Detroit
Fisher, George S....1310 David Broderick Tower, Detroit
Fisher, James M....79 Kercheval, Grosse Pointe
Fisher, O. O....2475 Iroquois Ave., Detroit
Fisher, Ralph L....8445 E. Jefferson, Detroit
Fitzgerald, James M....2536 W. Grand Blvd., Detroit
Flaherty, H. J....15865 Wyoming, Detroit
Flaherty, Norman W....10573 W. Jefferson, River Rouge
Fleming, L. N....6150 W. Fort St., Detroit
Flora, William Robert....8909 E. Jefferson, Detroit
Flower, J. A....14140 Puritan, Detroit
Fogt, Herbert E....7835 E. Forest, Detroit
Fogt, Robert G....7835 E. Forest, Detroit
Folberg, Irving....9246 Grand River, Detroit
Foley, Hugh S....22255 W. Michigan, Dearborn
Foley, Joseph M....1429 David Whitney Bldg., Detroit
Font, Anthony J....2195 E. Grand Blvd., Detroit
Foote, James A....1336 Southfield Rd., Lincoln Park
Ford, George A. (L)....803 Stroh Bldg., Detroit
Ford, Sylvester....1010 Stroh Bldg., Detroit
Ford, Walter D. (E)....4866 Third Ave., Detroit
Fordell, F. S....441 S. Oakwood, Lincoln Park
Forgrave, E. G....14001 Greenfield, Detroit
Forsythe, John R....19566 Grand River, Detroit
Foster, Daniel P....Henry Ford Hospital, Detroit
Foster, E. Bruce....853 Fisher Bldg., Detroit
Foster, Linus J....10 Peterboro, Detroit
Foster, Owen C....1015 David Whitney Bldg., Detroit
Foster, Wallace M....13700 Woodward, Detroit
Foster, Wm. L....2567 W. Grand Blvd., Detroit
Fowler, Melvin E....247 E. Warren, Detroit
Fox, Leonard....258 Emmons Blvd., Wyandotte
Fox, Morris Edward....10 Peterboro, Detroit
Fraiberg, Paul L....13001 W. Chicago, Detroit
France, C. J....3401 Burns Ave., Detroit
Franjac, M. J....13919 Michigan Ave., Dearborn
Franklin, John T. W....73 Orchestra Place, Detroit
Franzen, Nils A....19566 Grand River, Detroit
Frazer, Mary Margaret....812 Kales Bldg., Detroit
Frederickson, G. C....3919 John R, Detroit
Free, Harry W....952 Fisher Bldg., Detroit
Freedman, John....4853 2nd Blvd. at Warren Ave., Detroit
Freeman, Michael W....1810 Wallesley Dr., Detroit
Freeman, D. K....881 Chalmers, Detroit
Freeman, Mable....1316 Broderick Tower, Detroit
Freedman, Milton....18626 Santa Barbara, Detroit
Freeman, Thelma....1055 Knox St., Birmingham
Freeman, Wilmer....940 E. Seven Mile Rd., Detroit
Freid, Samuel....16850 Joy Road, Detroit
Freier, Morton L....1503 Kales Bldg., Detroit
Fremont, Joseph C....1202 David Whitney Bldg., Detroit
Freund, Hugo A....62 West Kirby Ave., Detroit
Frey, James L....422 W. Golden Gate, Detroit
Friedlaender, Alex S....905 Kales Bldg., Detroit
Friedlaender, Sidney....905 Kales Bldg., Detroit
Friedman, David....2429 E. Milwaukee Ave., Detroit
Friedman, I. H....3773 2nd Ave., Detroit
Fritz, George E....9149 E. Jefferson, Detroit
Frothingham, George E. (E)....707 David Whitney Bldg., Detroit
Fryfogle, James D....655 Fisher Bldg., Detroit
Fulgenzi, Andrew A....7445 Mack Ave., Detroit
Fullenwider, Allan C....22128 Grand River, Detroit
Fuller, Hugh M....1257 David Whitney Bldg., Detroit
Fulton, William James....3-204 General Motors Bldg., Detroit
Gaberman, David B....908 Broderick Tower, Detroit
Gaffney, J. Mitchell....7356 12th St., Detroit
Galantowicz, Henry C....7433 Michigan, Detroit
Galdonyi, Laslo....1406 Broderick Tower, Detroit
Galdonyi, Nicholas....8001 W. Jefferson, Detroit
Galerneau, D. B....25005 Van Dyke, Center Line
Galles, J. O....7702 W. Fort St., Detroit
Galvin, Paul P....7416 Twelfth St., Detroit
Gannan, Arthur M....4515 Trumbull, Detroit
Ganschow, John H....1840 Holbrook, Detroit
Gardner, Lawrence W....6071 W. Outer Drive, Detroit
Gariepy, Louis J....16401 Grand River Ave., Detroit
Gass, H. Harvey....755 Fisher Bldg., Detroit
Gaston, Herbert B....871 Fisher Bldg., Detroit
Gates, Nathaniel H....10 Peterboro, Detroit
Gaydos, Leonard M....311 David Whitney Bldg., Detroit
Gaynor, Alex....1326 E. Seven Mile Rd., Detroit
Gehring, Harold W....767 Fisher Bldg., Detroit
Geib, Ledru O....3528 Van Dyke St., Detroit
Geitz, William A....7234 E. Forest Avenue, Detroit
Gelbach, P. D....2900 S. Fort, Detroit
Gellert, I. S. (L)....1229 David Whitney Bldg., Detroit
Gemeroy, J. C....664 Fisher Bldg., Detroit
Gerondale, Edmond J....750 Fisher Bldg., Detroit
Gibson, Dumbar....8550 Oakland, Detroit
Giese, Douglas....602 Doctors Bldg., Detroit
Giese, Fred W....18526 Schoolcraft, Detroit
Gigante, Nicola....3413 McDougall Ave., Detroit
Gigliotti, David....Providence Hospital, Detroit
Gilbert, Harold R....13418 Fort Street, Wyandotte
Gillespie, Stephen M....1011 Haigh St., Dearborn
Gillman, R. W. (E)....10 Peterboro, Detroit
Gilpin, W. A....4560 Niagara Lane, Rte. 1, Birmingham
Ginsberg, Harold I....1328 Maccabees Bldg., Detroit
Gitlin, Charles....1610 Glendale, Detroit
Gitlin, Julius R....6502 Chene, Detroit
Gittins, Perry C....732 Maccabees Bldg., Detroit
Glasgow, Gordon K....575 Lodge Drive, Detroit
Glassman, Samuel....60 W. Hancock, Detroit
Glazer, Walter S....60 W. Hancock, Detroit
Gleason, John E. (L)....1061 David Whitney Bldg., Detroit
Glees, John L....11631 Mack, Detroit
Glemet, Raymond B....3314 Bagley, Detroit
Glowacki, B. F....1144 Maccabees Bldg., Detroit
Gmeiner, Clarence C....13339 Woodrow Wilson Bldg., Detroit
Goerke, Elmer A....3663 Goddard Road, Romulus
Goetz, Angus G....710 David Whitney Bldg., Detroit
Goins, W. F....6675 Tireman, Detroit
Goldberg, Arthur....340 8 Mile Road, Detroit
Goldberg, Harry H....514 Fox Theater Bldg., Detroit
Goldberg, Nathan....514 Fox Theater Bldg., Detroit
Goldin, M. I....632 Maccabees Bldg., Detroit
Goldman, Abe A....1013 Kales Bldg., Detroit
Goldman, Aubrey....909 Kales Bldg., Detroit
Goldman, Perry....1318 Maccabees Bldg., Detroit
Goldstein, Abe S....2260 LaSalle Gardens, Detroit
Goldstone, R. R....10 Peterboro, Detroit
Gollman, Maurice D....918 Maccabees Bldg., Detroit
Gonne, William S....619 David Whitney Bldg., Detroit
Goodman, Herbert L....1512 St. Antoine, Detroit
Goodrich, Benjamin E....Henry Ford Hospital, Detroit
Gordon, John W. (R)....12700 Mendota, Detroit
Gordon, William E....14820 Rosemont, Detroit
Gordon, William H....1102 David Whitney Bldg., Detroit
Gore, Ira....Henry Ford Hospital, Detroit
Gorelick, Martin J....23901 Michigan Ave., Dearborn
Gorning, Raymond P....857 Marlborough, Detroit
Goryl, Stephen V....9953 E. Forest, Detroit
Goss, Samuel B....10 Peterboro, Detroit

Gostine, Edmond....9758 Chalmer Ave. at Longview, Detroit
Gottschalk, Fred W....1314 Maccabees Bldg., Detroit
Gould, S. Emanuel....Eloise Hospital, Eloise
Gourley, E. V....3919 John R, Detroit
Goux, Raymond S....545 David Whitney Bldg., Detroit
Grace, Joseph M....17505 Parkside, Detroit
Graff, J. M....7305 Joseph Campau, Detroit
Graham, John G., Jr....7815 E. Jefferson, Detroit
Grain, Gerald O....Henry Ford Hospital, Detroit
Grajewski, Leo E....2201 E. Jefferson Ave., Dertoit
Gramley, William....13328 E. Jefferson Ave., Detroit
Granger, Francis L....14160 Gratiot Ave., Detroit
Granger, G. R....1406 David Broderick Tower, Detroit
Grant, Abraham H....2012 Gladstone, Detroit
Grant, Heman E. (L)....Detroit
Gratton, Henri L....1301 Kales Bldg., Detroit
Gravelle, Lawrence J....1036 David Whitney Bldg., Detroit
Gray, Jacques Pierce....1415 Parker, Detroit
Green, Ellis R....5172 Scotten Ave., Detroit
Green, Lewis....13000 Grand River, Detroit
Green, Louis M....14636 E. Seven Mile Road
Green, Nelson W....15819 Wyoming, Detroit
Green, Simpson W....908 Hofmann Bldg., Detroit
Greenberg, Jack R....15743 W. 7 Mile Road, Detroit
Greenberg, Julius J....1211 David Broderick Tower, Detroit
Greenberg, Morris Z....9105 Van Dyke, Detroit
Greene, John B....2730 Hastings St., Detroit
Greenidge, Robert....4839 Beaubien St., Detroit
Greenlee, William Tate....14201 Gratiot Ave., Detroit
Greiner, Bert A....13739 Gratiot, Detroit
Grekin, John N....3016 David Stott Bldg., Detroit
Grekin, Samuel L....951 Fisher Bldg., Detroit
Griffith, A. J....14049 Warwick Road, Detroit
Griffiths, Sidney....15400 Plymouth Road, Detroit
Grimaldi, Gregory J....2983 Seminole, Detroit
Grinstein, Alexander....18700 Woodingham Drive, Detroit
Grob, Otto....651 Fisher Bldg., Detroit
Gross, Louis....18937 Van Dyke, Detroit
Grotz, Genevieve A....Wayne Co. Health Dept., Eloise
Gudes, David S....1080 Fisher Bldg., Detroit
Guerrero, Jose....13535 Woodward Ave., Detroit
Gulick, Arthur E....Deer Street, Plymouth
Guimaraes, A. S....7301 Shaefer Highway, Dearborn
Guinan, G. E....35551 Ford Road, Wayne
Gurdjian, E. S....840 David Whitney Bldg., Detroit
Gurskis, Eugenia....504 Kales Bldg., Detroit
Gutow, Benj. R....602 Maccabees Bldg., Detroit
Gutterman, Meyer A....1007 Kales Bldg., Detroit
Haefele, Leslie P....29108 Ford Road, Garden City
Haitinger, Kalmon S....7850 E. Jefferson, Detroit
Haking, Leonard....9661 Gratiot, Detroit
Hale, Arthur S....1501 David Whitney Bldg., Detroit
Hall, E. Walter....10 Peterboro, Detroit
Hall, James A. J....28 W. Adams St., Detroit
Hall, Ralph E....10 Peterboro, Detroit
Hall, Robert J....6014 W. Fort St., Detroit
Hall, Winthrop D....3000 Schaefer Road, Dearborn
Hallen, Leonard....14001 Greenfield, Detroit
H'Amada, Norman K....904 Maccabees Bldg., Detroit
Hamburger, A. C....1512 David Broderick Tower, Detroit
Hamil, Brenton M....Henry Ford Hospital, Detroit
Hamilton, Norman C....14555 Wyoming, Detroit
Hamilton, W. F. (L)....58 W. Adams Ave., Suite 310, Detroit
Hamilton, William....13836 Woodward Ave., Detroit
Hammer, Edwin J....16616 Mack, Detroit
Hammond, Arthur E....1863 David Whitney Bldg., Detroit
Hammond, J. L....25520 Goddard Road, Taylor Center
Hand, Fordus V....81 East Kirby, Detroit
Hanna, Carl....15777 Lindsay Ave., Detroit
Hanna, E. Howard....1004 Maccabees Bldg., Detroit
Hansen, Frederick E....16854 Baylis, Detroit
Hanser, Joshua (L)....3000 Fields, Detroit
Hardstaff, R. John....1201 Stroh Bldg., Detroit
Harelik, E. W....614 Maccabees Bldg., Detroit
Harkaway, Roman....19125 Van Dyke, Detroit
Harley, Garth H....834 N. York, Dearborn
Harley, Louis M....660 Maccabees Bldg., Detroit
Harm, Winfred B....5884 West Vernor Highway, Detroit
Harmon, Walter....2510 E. Davison, Detroit
Harper, Jesse T....1248 David Whitney Bldg., Detroit
Harrington, Frank L....4120 Fenkell, Detroit
Harris, Harold H....8011 W. Vernor Highway, Detroit
Harris, Ivor David....1536 David Whitney Bldg., Detroit
Harrison, Hugh (E)....3505 E. Forest Ave., Detroit
Harrison, Wesley, Jr....4847 Iroquois, Detroit
Hart, Charles E....9341 Moffat Ave., Detroit
Hart, John C....9341 Moffat Ave., Detroit
Hartkop, Henry H....905 Stroh Bldg., Detroit
Hartman, Frank W....Henry Ford Hospital, Detroit
Hartquist, Robert J. (M)....USAF Station Hosp. Chanute Air Base, Illinois
Hartzell, John B....7815 Jefferson Ave. E., Detroit
Hasley, Clyde K....1429 David Whitney Bldg., Detroit
Hasley, Daniel E....1516 St. Antoine St., Detroit
Hassig, W. W....3631 McClellan, Detroit
Hastings, Orville J....15132 Harper, Detroit
Hathaway, Hubert R....Ford Motor Co., Dearborn
Hause, Glen E....16401 Grand River, Detroit
Hauser, I. Jerome....7411 Third Ave., Detroit
Hauser, John E....671 Fisher Bldg., Detroit
Hauser, Maurice J....7411 Third Ave., Detroit
Havers, Howard....1032 Maccabees Bldg., Detroit
Hawkins, James W....8527 Quincy Ave., Detroit
Heath, Leonard P....1457 David Whitney Bldg., Detroit
Heavner, Lyle E....119 Kercheval, Detroit
Hecht, Manes S....773 Fisher Bldg., Detroit
Hedges, Frank W....11631 Mack Ave., Detroit
Heenan, Theophilus H....1409 David Whitney Bldg., Detroit
Heideman, Louis E....12244 Dexter Blvd., Detroit
Heldt, Thomas J....Henry Ford Hospital, Detroit
Hellems, H. K....Wayne University Col. of Med., Detroit
Hendelman, Manuel H....14350 Harper, Detroit
Henderson, Allison B....5320 John R, Detroit
Henderson, Arthur B....10452 Mack, Detroit
Henderson, Charles W....853 Fisher Bldg., Detroit
Henderson, Harold....852 Fisher Bldg., Detroit
Henderson, J. L....11339 St. Aubin Ave., Detroit
Henderson, John C....3919 John R, Detroit
Henderson, Leslie T....13038 E. Jefferson, Detroit
Henderson, William E....5349 Van Dyke Ave., Detroit
Hendry, H. W....2716 Rochester, Detroit
Henig, Fred N....7605 W. Seven Mile Road, Detroit
Henrich, Lawrence E....2501 W. Grand Blvd., Detroit
Herbst, Harold B....17300 Schaefer Road, Detroit
Herkimer, Dan R....1802 Buckingham, Lincoln Park
Herrold, Rose E....1277 E. Grand Blvd., Detroit
Herschelmann, Roy F....3343 Gratiot Ave. at Mack, Detroit
Herwick, John T....Henry Ford Hospital, Detroit
Hesslschwerdt, D. W....3919 John R, Detroit
Hewitt, Leland V....917 David Whitney Bldg., Detroit
Hewitt, Robert S....2255 Fort Street, Lincoln Park
Heyner, Stanley A....7415 Fullerton Ave., Detroit
Hickey, Joseph....6004 W. Fort St., Detroit
Hicks, Fred G....7301 Schaefer Road, Dearborn
Higbee, Arthur L....429 E. Grand Blvd., Detroit
Hileman, S. Lee....4043 W. Jefferson, Ecorse
Hill, E. J....1515 David Whitney Bldg., Detroit
Hill, Welford T....2405 Joseph Campau, Detroit
Hillenberg, Sidney J....20215 W. Seven Mile Rd., Detroit
Hillenbrand, Alfred E....14321 Kercheval, Detroit
Hiller, Glenn I....397 Elmhurst, Highland Park
Hilton, Wm. E....13902 Mack Ave., Detroit
Hiratzka, Tomiharu....1512 St. Antoine, Detroit
Hirschman, L. J. (E)....2619 Munson Ave., Traverse City
Hoagland, Thomas V....28 W. Adams, Suite 1807, Detroit
Hochman, Morton M....16633 Plymouth Road, Detroit
Hodges, Jason....1200 S. Oxford Road, Grosse Pointe Woods
Hodgkinson, C. P....Henry Ford Hospital, Detroit
Hodoski, Frank J....3814 35th St., Detroit
Hoffman, E. S....766 Fisher Bldg., Detroit
Hoffman, Edward A....10125 Tireman, Dearborn
Hoffman, Harry Y....9920 Harper, Detroit
Hoffman, Henry A....10015 E. Outer Drive, Detroit
Hoffman, Martin H....1311 David Whitney Bldg., Detroit
Holcomb, August A....117 W. Wing St., Northville
Holcomb, Clayton E....22203 Grand River, Detroit
Hollander, A. J....8026 Michigan Ave., Detroit
Hollis, Henry B....7439 W. Warren, Detroit
Holman, Herbert H....2010 David Broderick Tower, Detroit
Holmes, Alfred W....8802 Michigan, Detroit
Holt, Henry T....432 Lathrop Road, Grosse Pointe Farms
Honhart, Fred L....3240 Gratiot, Detroit
Honor, William H. (L)....2966 Biddle, Wyandotte
Hookey, John A....2918 Biddle, Wyandotte
Hooper, Norman L....6 Port Drive, Detroit
Hoops, George B. (L)....754 Fisher Bldg., Detroit
Hopkins, J. E....6381 W. Fort St., Detroit
Horan, Thomas N....1217 David Whitney Bldg., Detroit
Horkins, Harold A....893 Lakewood, Detroit
Horny, Hugo....619 Barrington Road, Grosse Pointe
Horton, Reece H....938 David Whitney Bldg., Detroit
Horvath, Louis O....9122 W. Fort St., Detroit
Horwitz, John B....1208 David Broderick Tower, Detroit
Hotchkiss, Loris M....33220 W. Seven Mile Road, Farmington
Howard, Austin Z....825 David Whitney Bldg., Detroit
Howard, Philip J....Henry Ford Hospital, Detroit
Howard, W. L....Maybury San, Northville
Howell, Bert F....10800 Whittier, Detroit
Howes, Homer A....1515 David Whitney Bldg., Detroit
Howes, Willard Boyden....1800 Tuxedo, Detroit
Howlett, Howard T....868 Fisher Bldg., Detroit
Hromadko, Louis....1075 Fisher Bldg., Detroit
Hubbard, John P....1130 E. Grand River, Detroit
Hubbard, Ralph G....14800 Prevost, Detroit
Hudson, J. Stewart....17443 E. Jefferson Ave., Grosse Pointe
Hudson, Wm. A....602 David Whitney Bldg., Detroit
Huegli, Wilfred A....16840 E. Warren, Detroit
Huff, Reginald G....35550 Michigan Ave., Wayne
Hull, LeRoy W....1701 David Whitney Bldg., Detroit
Hulme, A. W., Lt. (jg) (M) USNR....2nd Med Bat., 2nd Marine Div., Camp Lejeune, N. C.
Huminski, T. S....19036 Van Dyke, Detroit
Hummel, Arthur R....8045 E. Jefferson, Detroit
Hunt, T. H....19431 Van Dyke, Detroit
Hunt, Verne G....723 David Whitney Bldg., Detroit
Hunter, Basil H....13341 Livernois, Detroit
Hunter, Elmer N....7615 W. Vernor Highway, Detroit
Husband, Chas. W....3810 Northwestern Ave., Detroit
Husband, R. C....3810 Northwestern, Detroit
Hyatt, Jarvis M....22340 Michigan, Dearborn
Hyde, Frederick W....6104 W. Vernor Highway, Detroit
Hyde, Frederick W., Jr....Grace Hospital, Detroit
Hyland, John R....13030 Mack Ave., Detroit
Hyman, Samuel J....27371 Michigan, Inkster
Iacobell, Peter H....19300 Van Dyke, Detroit
Igna, Eli J....1109 Kales Building, Detroit

Ignatius, A. A. ....8830 W. McNichols, Detroit
Irvin, Earle Albert ....1341 Buckingham Road, Detroit
Irwin, William A. ....Providence Hospital, Detroit
Isaacson, Arthur ....2921 E. Davison, Detroit
Iseri, Lloyd T. ....Wayne University, Detroit
Israel, Barney B. ....1424 Maccabees Bldg., Detroit
Israel, Joseph G. ....870 Maccabees Bldg., Detroit
Jacobson, Samuel D. ....2435 Oakman Blvd., Detroit
Jaekel, C. N. ....1086 E. Grand Blvd., Detroit
Jaeger, Grove A. ....1802 E. Grand Blvd., Detroit
Jaffar, Donald J. ....734 Maccabees Bldg., Detroit
Jaffe, J. L. ....7465 Harper, Detroit
Jaffe, Jacob ....501 Fox Theater Bldg., Detroit
Jaffe, Louis ....1605 David Broderick Tower, Detroit
Jahsman, William E. ....Henry Ford Hospital, Detroit
Jamieson, Thomas J. ....1310 Warwick, Lincoln Park
Janicki, Natalia J. ....Wayne Co. General Hospital, Eloise
Jarre, Hans A. ....Grace Hospital, Detroit
Jarsen, Frank J. ....817 Beechmont, Dearborn
Jarvis, Harold F. ....13642 Gratiot at McNichols Road, Detroit
Jasion, Lawrence J. ....16853 Harper, Detroit
Jeffries, Benjamin ....1753 Guardian Bldg., Detroit
Jend, W. J. (L) ....3598 Mitchell, Detroit
Jenkins, Elwood A. ....514 Kales Building, Detroit
Jennings, Charles G. ....7815 E. Jefferson, Detroit
Jennings, Elmer R. ....Alexander Blain Hospital, Detroit
Jentgen, Chas. J. ....2501 W. Grand Blvd., Detroit
Jentgen, L. G. ....7338 Woodward, Detroit
Jeremias, Robert C. ....13300 Livernois, Detroit
Jewell, F. C. ....1122 E. Grand Blvd., Detroit
Jocz, M. W. ....945 Trombley Road, Grosse Pointe Park
Jodar, E. O. ....15760 Mack, Detroit
John, Hubert R. ....650 Maccabees Bldg., Detroit
Johnson, Homer L. ....Henry Ford Hospital, Detroit
Johnson, Ralph A. ....7815 E. Jefferson, Detroit
Johnson, Thomas ....20526 Grand River, Detroit
Johnson, Vernon P. ....10445 Kercheval, Detroit
Johnson, Vincent C. ....10 Peterboro, Detroit
Johnson, W. H. M. ....7159 Michigan, Detroit
Johnston, Charles G. ....1512 St. Antoine, Detroit
Johnston, Everett V. ....3413 McDougall, Detroit
Johnston, John L. ....1950 W. McNichols Road, Detroit
Johnston, Joseph A. ....Henry Ford Hospital, Detroit
Johnston, R. M. ....Grace Hospital, Detroit
Johnston, William E. ....1071 Fisher Bldg., Detroit
Johnstone, B. I. ....555 Fisher Bldg., Detroit
Joinville, E. V. ....1202 Stroh Bldg., Detroit
Jones, Arthur J. ....5760 Burns Ave., Detroit
Jones, Edna M. ....Mayburv Sanatorium, Northville
Jones, L. F. ....19191 Mendota Road, Detroit
Jones, Roy D. ....15720 James Couzens Highway, Detroit
Jones, W. J. ....2514 Biddle, Wyandotte
Jordan, R. Gerald ....7759 Harper Ave., Detroit
Joyce, Stanley J. ....1078 Fisher Bldg., Detroit
Juliar, Benjamin ....1004 David Broderick Tower
Jurow, Harry N. ....771 Fisher Bldg., Detroit
Jury, Donald B. ....18800 Woodward, Detroit
Kalayjian, Bernard S. ....Woman's Hospital, Detroit
Kalder, Ned Block ....6071 W. Outer Drive, Detroit
Kallet, Herbert I. ....944 Maccabees Bldg., Detroit
Kallman, David ....5725 Cass, Detroit
Kallman, Leo ....5725 Cass, Detroit
Kallman, R. Robert ....908 Hoffman Bldg., Detroit
Kamin, Louis E. ....4642 Second Blvd., Detroit
Kaminski, Zeno L. ....3504 24th St., Detroit
Kamperman, George A. (L) ....1807 David Whitney Bldg., Detroit
Kanter, Herman ....13127 West Seven Mile Rd., Detroit
Kapetansky, A. J. ....1728 Clairmont, Detroit
Kapetansky, N. J. ....4790 W. Fort St., Detroit
Kaplita, Walter A. ....5087 Caniff, Hamtramck
Kasabach, Harry Y. ....728 Maccabees Bldg., Detroit
Kasabach, V. Y. ....523 Book Tower Bldg., Detroit
Kasper, Joseph A. ....Bon Secour Hospital, Grosse Pointe
Kaspor, Albert J. ....1183 E. Grand Blvd., Detroit
Kass, Arnold ....1316 David Stott Bldg., Detroit
Kass, J. B. ....5892 Joseph Campau, Detroit
Kaump, Donald H. ....Providence Hospital, Detroit
Kauppinen, J. A. ....15400 Plymouth Road, Detroit
Kawecki, Lucian ....5112 Oakman Blvd., Dearborn
Kay, Edward W. ....12004 Jos. Campau, Hamtramck
Kazdan, Louis L. ....1027 David Stott Bldg., Detroit
Kazdan, Morris A. ....4619 Allen, Allen Park
Keane, William E. (L) ....1737 David Whitney Bldg., Detroit
Keating, Thomas F. ....18675 Gainsborough, Detroit
Kehoe, Henry J. ....15252 Gratiot, Detroit
Keim, H. L. ....1110 David Broderick Tower, Detroit
Keith, Kelly ....106 West Davison, Detroit
Kelley, Frank James ....3919 John R. St., Detroit
Kelmenson, Victor A. ....7356 12th St., Detroit
Kelson, Malcolm J. ....119 Kercheval, Detroit
Kemler, Walter J. ....4045 W. Jefferson, Ecorse
Kennary, James M. ....4900 Cadieux Road, Detroit
Kennedy, Chas S. ....10 Peterboro, Detroit
Kennedy, Donald J. ....1220 Livernois, Detroit
Kennedy, Robert B. ....2108 David Broderick Tower, Detroit
Kennedy, William Y. ....10 Peterboro, Detroit
Kenning, John C. (A) ....526 N. Crescent Dr., Beverly Hills, Calif.
Kennison, Warren S. ....1103 Kales Bldg., Detroit
Kernkamp, Ralph F. ....1204 Broderick Tower, Detroit
Kernick, M. O. ....13700 Woodward Ave., Detroit
Kersten, Werner ....3100 Gratiot, Detroit
Kerzman, Joseph H. ....850 Maccabees Bldg., Detroit
Keshishian, Sarkis K. ....13544 Woodward Ave., Detroit
Keyes, Eugene Charles ....4840 Maple St., Dearborn
Keyes, John W. ....Henry Ford Hospital, Detroit
Kibzey, Ambrose T. ....4651 Braden, Detroit
Killins, Charles G. ....7850 E. Jefferson Ave., Detroit
Kimberlin, Kenneth K. ....16101 Harper, Detroit
King, Edward D. ....5455 W. Vernor Highway, Detroit
King, Melbourne J. ....5455 W. Vernor Highway, Detroit
Kingsley, Joyce W., Jr. ....2201 E. Jefferson, Detroit
Kingswood, Roy C. ....90 E. Warren Ave., Detroit
Kinsley, George ....909 Kales Bldg., Detroit
Kirschbaum, Harry M. ....1104 Maccabees Bldg., Detroit
Kitzmiller, John L. ....1066 Fisher Bldg., Detroit
Klebba, Paul A. ....151 Grixdale, Detroit
Klein, Alfred ....13000 Grand River Ave., Detroit
Klein, Howard A. ....1838 David Whitney Bldg., Detroit
Klein, Sander P. ....1312 David Broderick Tower, Detroit
Klein, William ....18040 Mendota, Detroit
Kleinman, S. ....2909 W. Grand Blvd., Detroit
Kliger, David ....7756 Southfield, Detroit
Kline, J. R. ....932 Washington Blvd., Grosse Pointe
Kline, S. L. ....804 N. Rademacher, Detroit
Klosowski, Joseph ....8222 E. Outer Drive, Detroit
Knaggs, Charles W. (L) ....1209 Yorkshire, Grosse Pointe
Knaggs, Earl J. ....3164 Biddle, Wyandotte
Knapp, Byron S. ....10909 W. Jefferson, River Rouge
Knapp, Floyd B. ....16565 Birwood, Detroit
Knobloch, Edmund J. ....5933 Chene, Detroit
Knoch, Hubert S. ....14149 E. Jefferson, Detroit
Knox, Ross M. ....9 Salliotte, Ecorse
Koch, John C. ....1053 Iroquois, Detroit
Koebel, R. H. ....14504 Mack Avenue, Detroit
Koerber, Edward J. ....4876 Lakeview Ave., Detroit
Koessler, George L. (L) ....1475 Junction Ave., Detroit
Kogut, C. S. ....10542 Fenkell, Detroit
Kokowicz, Raymond J. ....1056 Maccabees Bldg., Detroit
Kolasa, W. B. ....1910 E. Grand Blvd., Detroit
Kopel, Joseph O. ....10 Peterboro, Detroit
Koren, Louis ....1214 Griswold St., Rm. 610, Detroit
Koschnitzke, Herman K. ....2900 S. Fort, Detroit
Kossayda, Adam W. ....5605 Michigan Ave., Detroit
Koster, Koert ....1001 Merton Road, Detroit
Kovach, Emery P. ....14149 E. Jefferson, Detroit
Kozlinski, Anthony E. ....5359 Chene, Detroit
Kozlow, Louise E. Ange ....863 Fisher Bldg., Detroit
Kovan, D. D. ....16965 Hamilton, Highland Park
Koven, Abraham ....10 Peterboro, Detroit
Kraft, Raymond B. ....9300 Mack Ave., Detroit
Kraft, Ruth M. ....972 Fisher Bldg., Detroit
Krass, Edward W. ....11088 Gratiot Ave., Detroit
Kraus, John J. ....16840 E. Warren, Detroit
Krebs, William T. ....16419 E. Warren, Detroit
Kreinbring, George E. ....4229 Mt. Elliott, Detroit
Kretzschmar, John C. ....535 E. Grand Blvd., Detroit
Krieg, Earl G. ....1842 David Whitney Bldg., Detroit
Krieger, Harley L. ....11390 Strathmore, Detroit
Kritchman, M. J. ....2314 David Broderick Tower, Detroit
Kroha, Lawrence A. ....15124 Karcheval, Detroit
Krohn, Albert H. ....5137 Second Ave., Detroit
Kruidenier, Bastian ....9964 Gratiot Ave., Detroit
Krvnicki, Francis X. ....1044 Maccabees Bldg., Detroit
Kubanek, Joseph L. ....23134 Myrtle St., Dearborn
Kucmierz, Francis S. ....12181 Joseph Campau, Detroit
Kuhn, Albert Arthur ....90 E. Warren, Detroit
Kuhn, Richard F. ....1700 Junction, Detroit
Kulaski, Chester H. ....9309 Joseph Campau, Detroit
Kullman, Harold J. ....Veterans Administration Hosp., Dearborn
Kurcz, Joseph A. ....7433 Michigan, Detroit
Kurtz, Harry C. ....504 Doctors Bldg., Detroit
Kurtz, I. J. ....503 Fox Theater Bldg., Detroit
Kurtz, Leonard D. ....2208 Broderick Tower, Detroit
Kwasiborski, Stanley A. ....2300 Oak St., Wyandotte
LaBerge, James M. ....114 Maple St., Wyandotte
LaBine, Alfred C. ....8-259 General Motors Bldg., Detroit
La Ferte, Alfred D. ....1401 David Whitney Bldg., Detroit
Lake, R. C. ....10700 Balbour Road, Detroit
Lakoff, Charles ....5057 Woodward, Detroit
Lam, Conrad R. ....Henry Ford Hospital, Detroit
Lamberson, Frank A. ....19001 Grand River, Detroit
Lammy, James V. ....644 Maccabees Bldg., Detroit
Lampman, H. H. ....675 Fisher Bldg., Detroit
Landers, Maurice B., Sr. ....950 David Whitney Bldg., Detroit
Lang, E. F. ....Harper Hospital, Detroit
Lang, Leonard W. ....17400 Schaefer, Detroit
Lange, Anthony H. ....364 E. Grand Blvd., Detroit
Lange, William A. ....3919 John R, Detroit
Langston, H. T. ....18854 Gainsborough, Detroit
Laning, George M. ....1217 David Whitney Bldg., Detroit
Lansky, Mandell ....2577 Van Dyke, Detroit
Lapham, Fred E. ....12583 Livernois, Detroit
Large, A. M. ....1410 Kales Bldg., Detroit
Larned, Richard I. ....14160 Gratiot, Detroit
Lasichak, Andrew G. ....908 Kales Bldg., Detroit
Lasley, James William ....1026 Maccabees Bldg., Detroit
Lathrop, Philip L. ....415 Book Bldg., Detroit
Latteier, Karl K. ....10 Peterboro, Detroit
Lauppe, Edward H. ....1650 David Whitney Bldg., Detroit
Lauppe, Frederick A. ....1801 David Whitney Bldg., Detroit
Laurisin, Eugene ....5290 W. Chicago, Detroit
Lazar, Morton R. ....3008 David Stott Bldg., Detroit
Leach, David ....865 Fisher Bldg., Detroit
Leacock, R. C. ....10619 E. Jefferson, Detroit
Leader, Luther R. ....1129 David Whitney Bldg., Detroit
Leaver, L. Ross ....757 Lakewood, Detroit

Lebamoff, Alexander T. ..... 6586 Allen, Allen Park
Leckie, George C. ..... 1355 David Whitney Bldg., Detroit
Lecklider, A. F. ..... Fisher Body Div., Piquette & St. Antoine, Detroit
Lee, Harry E. ..... 9247 Mack Ave., Detroit
LeGallee, George M. ..... 18520 W. Seven Mile Road, Detroit
Leibinger, Henry R. ..... 511 Barrington Road, Grosse Pointe
Leipsitz, Louis S. ..... 3566 Cass, Detroit
Leiser, Rudolf ..... Wayne Co. General Hosp., Eloise
Leith, Dorothy L. ..... 1115 Spencer Road, Brighton
Leithauser, Daniel J. ..... 14727 E. Jefferson, Detroit
Leland, Sol ..... 4725 14th St., Detroit
Lemley, Clark ..... 533 Fisher Bldg., Detroit
Lemon, Bruce K. ..... 716 Kales Bldg., Detroit
Lemmer, J. A. ..... 9300 Mack Avenue, Detroit
Lemmon, Charles E. ..... 1337 David Whitney Bldg., Detroit
Lemmon, Clarence W. ..... 10537 W. Jefferson, River Rouge
Lentine, James, J. ..... 3485 Audubon, Detroit
Lenz, Willard R. ..... 418 Moran Road, Grosse Pointe
Lepard, C. W. ..... 1025 David Whitney Bldg., Detroit
Lepley, Fred O. ..... 13302 Kercheval, Detroit
Lerman, S. E. ..... 23700 Van Dyke, Centerline
Lescohier, Alex W. ..... 663 University Place, Grosse Pointe
Leszynski, J. S. ..... 517 Professional Bldg., Peterboro & Woodward, Detroit
Leucutia, Traian ..... Harper Hospital, Detroit
Levagood, Floyd ..... 14056 Artesian, Detroit
Levant, Arthur B. ..... 14828 E. Warren, Detroit
Levin, David M. ..... 8819 Dexter Blvd., Detroit
Levin, Herbert G. ..... 17300 Schaefer, Detroit
Levin, Manuel ..... 19449 Meyers Road, Detroit
Levin, Michael M. ..... 616 Maccabees Bldg., Detroit
Levin, Samuel J. ..... 469 Fisher Bldg., Detroit
Levine, Sydney S. ..... 8233 W. Chicago, Detroit
Levitt, Edward J. ..... 840 Maccabees Bldg., Detroit
Levitt, Irving ..... 19214 Santa Barbara, Detroit
Levitt, Nathan ..... 607 Kales Bldg., Detroit
Levy, David ..... Harper Hospital, Detroit
Levy, Marvin B. ..... 13906 Woodward, Detroit
Lewin, Harry ..... 2539 Woodward, Detroit
Lewis, Charles T. ..... 5050 Joy Road, Detroit
Lewis, J. Hugh ..... 2956 Biddle, Wyandotte
Lewis, L. A. ..... 2730 E. Jefferson, Detroit
Lewis, Wilfred J. ..... 10 Peterboro, Detroit
Libbrecht, Robert V. ..... 6540 Park, Allen Park
Lichter, M. L. ..... 2900 Oakwood, Melvindale
Lichtwardt, Hartman A. ..... 432 Hancock Ave. E., Detroit
Liddicoat, A. G. ..... 20521 Fenkell, Detroit
Lieberman, B. L. ..... 1509 Holden, Detroit
Lightbody, James J. ..... 501 David Whitney Bldg., Detroit
Lignell, Rudolph W. ..... 16259 James Couzens Hwy., Detroit
Lilly, Charles J. ..... 2950 Puritan Ave., Detroit
Linkner, Leonard ..... 738 Maccabees Building, Detroit
Linn, H. J. ..... Veterans Hospital, Dearborn
Linton, James R. ..... Wayne Co. General Hospital, Eloise
Lipinski, Stanley L. ..... 7540 Michigan Ave., Detroit
Lipton, Raymond F. ..... 10 Peterboro, Detroit
Lipkin, Ezra ..... 4836 Michigan, Detroit
Lipschutz, Louis S. ..... 4741 Fullerton Ave., Detroit
Littlejohn, David ..... 23021 Lodge Lane, Dearborn
Litsky, Abraham ..... 1183 E. Grand Blvd., Detroit
Lockwood, Bruce C. ..... 723 David Whitney Bldg., Detroit
Lofstrom, James E. ..... 410 Kales Bldg., Detroit
Long, Earle C. ..... 2626 Rochester, Detroit
Long, John J. ..... 12421 Monica, Detroit
Longo, Salvatore ..... St. Mary's Hospital, Detroit
Longyear, Harold W. ..... 706 Maccabees Bldg., Detroit
Lookanoff, V. A. ..... 17145 Fairfield, Detroit
Loranger, C. B. ..... 20825 Mack, Detroit
Loranger, Guy L. ..... 250 Rayson St., Northville
Lorber, Joseph H. ..... 4255 Cortland, Detroit
Lorentzen, Edwin H. ..... 11702 Grand River, Detroit
Love, W. Thomas ..... 231 E. Warren, Detroit
Lowe, Adolf W. ..... 3338 W. Davison, Detroit
Lowe, Townsend ..... 9430 Oakland, Detroit
Lowrie, William L., Jr. ..... Henry Ford Hospital, Detroit
Lowry, George L. ..... 11601 E. Jefferson, Detroit
Lublin, Ann ..... 18472 Whitcomb, Detroit
Luce, Henry A. ..... 629 David Whitney Bldg., Detroit
Lukas, John R. ..... 7068 Michigan, Detroit
Lumpkin, John G., Jr. ..... 243 East Warren, Detroit
Lutz, Earl F. ..... 13-204 General Motors Bldg., Detroit
Lyford, John ..... Henry Ford Hospital, Detroit
Lynn, David H. ..... 2900 S. Fort St., Detroit
Lynn, Harvey D. ..... 2900 South Fort St., Detroit
Lyons, James H. ..... Wayne Co. General Hospital, Eloise
Lyons, William Harrington ..... 1012 Kales Bldg., Detroit
Lytle, Robert P. ..... 1069 Fisher Bldg., Detroit
Maben, Hayward C., Jr. ..... 9342 Oakland, Detroit
Mabley, J. Donald ..... 1139 David Whitney Bldg., Detroit
MacArthur, Robert A. ..... 95 Martin Place, Detroit
MacCracken, Frances L. ..... 3752 Gladstone, Detroit
MacDougall, O. P. ..... 13700 Woodward, Detroit
MacFarlane, Howard M. ..... 1105 David Whitney Bldg., Detroit
MacGregor, William W. ..... 1904 David Broderick Tower, Detroit
Mack, Harold C. ..... 955 Fisher Bldg., Detroit
MacKenzie, Earle D. ..... 81 E. Kirby, Detroit
MacKenzie, Edward P. ..... 12801 E. Jefferson, Detroit
MacKenzie, Frank M. ..... 641 David Whitney Bldg., Detroit
MacKenzie, John W. ..... 289 Rivard Blvd., Grosse Pointe
Mackersie, W. G. ..... 18205 Roselawn, Detroit
MacMillan, Francis B. ..... 920 David Whitney Bldg., Detroit
MacMullen, Frank B. ..... 1429 David Whitney Bldg., Detroit
MacPherson, K. C. ..... 8100 E. Jefferson, Detroit
MacQueen, Malcolm D. ..... 1654 1st National Bank Bldg., Detroit
Maczewski, John E. ..... 9535 Joseph Campau, Detroit
Magnell, Ralph C. ..... 8825 Puritan, Detroit
Maguire, Clarence E. ..... 536 David Whitney Bldg., Detroit
Mahoney, Hugh M. ..... 214 David Whitney Bldg., Detroit
Maibauer, Frederick P. ..... 2966 Biddle, Wyandotte
Maino, Linus J. ..... 2501 W. Grand Blvd., Detroit
Maire, Edward D. ..... 15224 E. Jefferson, Grosse Pointe
Mair, Harold U. ..... 10 Peterboro, Detroit
Malcomson, Joseph ..... 16861 Wyoming, Detroit
Malik, Edward A. ..... 11302 Chalmers, Detroit
Malik, Nur M. ..... 585 E. Grand Blvd., Detroit
Malina, Stephen ..... 15126 Heyden, Detroit
Malone, Richard ..... 8445 E. Jefferson, Detroit
Maloney, John A. ..... 1338 Maccabees Bldg., Detroit
Maltzer, Joseph H. ..... 14306 Gratiot Avenue, Detroit
Mancuso, Vincent S. ..... 1058 E. Grand Blvd., Detroit
Manning, Morey H. ..... 824 E. State Fair, Detroit
Manwaring, John T. ..... Vets. Admin. 312 E. Jefferson, Detroit
Maples, D. E. ..... 402 Center St., North Muskegon
Marcotte, Oliver ..... 2890 W. Grand Blvd., Detroit
Marcus, Daniel B. ..... 1122 Maccabees Bldg., Detroit
Marinus, Carleton J. ..... 303 David Whitney Bldg., Detroit
Mark, Jerome ..... 903 Kales Bldg., Detroit
Markey, Alexander P. ..... 13810 Michigan Ave., Dearborn
Markoe, Rupert C. L. ..... 4102 Brush St., Detroit
Marks, Ben ..... 902 Industrial Bank Bldg., Detroit
Marks, Bert ..... 20048 Mark Twain, Detroit
Marks, Morris ..... 12739 Puritan, Detroit
Marsden, T. B. ..... 2460 Edison, Detroit
Marsh, Alton R. ..... 1218 Maccabees Bldg., Detroit
Marshall, James R. ..... 14528 E. Jefferson, Detroit
Martin, Elbert A. ..... 1151 David Whitney Bldg., Detroit
Martin, J. B., Jr. ..... 449 E. Elizabeth, Detroit
Martin, L. R. ..... 2000 Second Blvd., Detroit
Martin, Peter A. ..... 17185 Muirland, Detroit
Martin, R. M. ..... 12115 Manor Ave., Detroit
Martineau, P. C. ..... 1151 Taylor Ave., Detroit
Martinez, Pedro O. ..... 1439 Bagley, Detroit
Martmer, Edgar E. ..... 526 Profession Bldg., Woodward at Peterboro, Detroit
Marwil, T. B. ..... 16965 Hamilton, Highland Park
Mason, Percy W. ..... 13311 E. Jefferson, Detroit
Mateer, John G. ..... Henry Ford Hospital, Detroit
Mathes, Charles J. ..... 8203 Twelfth St., Detroit
Mattson, Theodore ..... 3919 John R, Detroit
Maun, Mark E. ..... 1551 David Whitney Bldg., Detroit
Maxwell, J. Harvey ..... 2415 W. Grand Blvd., Detroit
May, Earl W. (A) ..... Star Rte., East Grand Lake, Alpena
May, Frederick T., Jr. ..... 608 Kales Bldg., Detroit
Mayer, E. V. ..... 16525 Woodward Ave., Detroit
Mayer, Willard D. ..... 510 Kales Bldg., Detroit
Maynard, Fred M. ..... 6525 Park, Allen Park
McAfee, F. W. ..... 6828 Vinewood Ave., Detroit
McAlonan, William T. ..... 10 Peterboro, Detroit
McAlpine, Gordon S. ..... 658 Fisher Bldg., Detroit
McBroom, Russell E. ..... 10 Peterboro, Detroit
McCadie, James ..... 13700 Woodward, Detroit
McCain, French H. ..... 970 Fisher Bldg., Detroit
McClellan, Robert J. ..... 906-8 Michigan Theatre Bldg., Detroit
McClellan, Robert J., II ..... 906-8 Michigan Theatre Bldg., Detroit
McClelland, Rachel ..... 461 Fisher Bldg., Detroit
McClendon, James J. ..... 503 E. Warren Ave., Detroit
McClintock, J. J. ..... 14255 Greenfield, Detroit
McClure, Robert W. ..... 1305 David Whitney Bldg., Detroit
McClure, William R. ..... 954 Fisher Bldg., Detroit
McColl, Charles W. ..... 2826 Biddle, Wyandotte
McColl, Clarke M. ..... Henry Ford Hospital, Detroit
McColl, Kenneth M. ..... 18520 E. Warren, Detroit
McCollum, E. B. ..... 761 David Whitney Bldg., Detroit
McCord, Carey P. ..... 10 Peterboro, Detroit
McCormick, Colin C. ..... 222 Shaefer Bldg., Dearborn
McCullough, Lester E. ..... 208 David Whitney Bldg., Detroit
McDonald, Angus L. ..... 13856 Gratiot Ave., Detroit
McDonald, G. O. ..... 13387 S. Norfolk St., Detroit
McDougall, Bernard W. ..... 16190 James Couzens Hwy., Detroit
McDowell, Douglas B. ..... Wayne County Gen'l Hosp., Eloise
McEvitt, William G. ..... 1713 David Whitney Bldg., Detroit
McFadyen, Hugh A. ..... 10 Peterboro, Detroit
McGarvah, A. W. ..... 7310 Grand River Ave., Detroit
McGarvah, Jos. A. ..... 7310 Grand River, Detroit
McGhee, Richard S. ..... 20254 Northlawn, Detroit
McGillicuddy, Walter E. ..... 511 Kales Bldg., Detroit
McGinnis, Daniel H. ..... 13243 West McNichols Road, Detroit
McGlaughlin, Nicholas D. ..... 2312 Biddle Ave., Wyandotte
McGough, Joseph M. ..... 14202 Fenkel Ave., Detroit
McGraw, Arthur B. ..... Henry Ford Hospital, Detroit
McGuire, M. Ruth ..... 763 Fisher Bldg., Detroit
McIntosh, W. V. ..... 276 Tyler, Detroit
McIntyre, W. B. ..... 1533 David Whitney Bldg., Detroit
McKean, G. Thomas ..... 1515 David Whitney Bldg., Detroit
McKean, Richard M. ..... 1515 David Whitney Bldg., Detroit
McKeever, G. E. ..... 15880 Greenlawn, Detroit
McKenna, Charles J. ..... 1130 E. Grand Blvd., Detroit
McKinley, Donald ..... Harper Hospital, Detroit
McKinnon, John D. ..... 106 W. Davison, Detroit
McKnight, Robert E. ..... 17198 Oak Drive, Detroit
McLane, Harriet E. ..... 4350 Oregon, Detroit
McLean, Don W. ..... 1066 Fisher Bldg., Detroit
McLean, Harold G. ..... 10 Peterboro, Detroit
McPherson, R. J. ..... 12626 Meyers Road, Detroit
McQuiggan, Mark R. ..... 1050 Fisher Bldg., Detroit
McRae, Donald H. ..... 275 W. Grand Blvd., Detroit

Meek, S. F. ... 13020 Kilbourne, Detroit
Meinecke, Helmuth A. ... 1912 David Broderick Tower, Detroit
Mellen, Hyman S. ... 622 Maccabees Bldg., Detroit
Menagh, Frank R. ... Henry Ford Hospital, Detroit
Mendelssohn, R. J. ... 14427 Mack, Detroit
Merkel, Charles C. ... 85 Kercheval, Grosse Pointe
Merrill, William O. ... 958 Fisher Bldg., Detroit
Merritt, Earl G. ... 10 Peterboro, Detroit
Mersky, Charlotte I. ... 5050 Cass Ave., Detroit
Metes, John S. ... 15252 Gratiot, Detroit
Metzger, Harry C. ... 76 W. Adams, Detroit
Meyers, Maurice P. ... 2204 David Broderick Tower, Detroit
Meyer, Reuben ... 938 Maccabees Bldg., Detroit
Meyers, Sidney ... 19635 Mack Ave., Detroit
Meyers, Solomon G. ... 1320 Maccabees Bldg., Detroit
Michels, Julius ... 9424 Mack Ave., Detroit
Mihay, Benjamin ... 13349 Michigan Ave., Dearborn
Miley, H. H. ... 8710 W. Davison, Detroit
Millard, Glenn E. ... 2900 W. Grand Blvd., Detroit
Miller, Daniel H. ... 8011 W. Vernor Highway, Detroit
Miller, Elmer B. ... 10 Peterboro, Detroit
Miller, Karl L. ... 1101 David Whitney Bldg., Detroit
Miller, M. M. ... 902 Balfour Road, Grosse Pointe
Miller, Myron H. ... 8120 W. McNichols Road, Detroit
Miller, Robert B. ... 8445 E. Jefferson, Detroit
Miller, Thomas H. ... 1305 David Whitney Bldg., Detroit
Miller, William Ernest ... 10 Peterboro, Detroit
Mills, Clinton C. ... 16190 James Couzens Highway, Detroit
Mills, G. V. ... 555 Clinton St., Detroit
Mintz, Edward I. ... 3008 David Stott Bldg., Detroit
Mintz, Morris J. ... 16895 Livernois, Detroit
Miral, Solomon R. ... 4858 E. Davison, Detroit
Mishelevich, Sophie ... 3008 W. Grand Blvd., Detroit
Mitchell, Augustus W. ... 314 Visger Road, River Rouge
Mitchell, C. Leslie ... Henry Ford Hospital, Detroit
Mitchell, D. P. ... 7741 John R. Street, Detroit
Mitchell, Gertrude F. ... 650 W. Bethune, Detroit
Mitchell, Ralston S. ... 243 E. Warren, Detroit
Mitchell, W. B. ... 2245 N. LaSalle Gardens, Detroit
Moehlig, Robert C. ... 964 Fisher Bldg., Detroit
Moisides, V. P. ... 1205 Stroh Bldg., Detroit
Mogill, George ... 3150 Second Ave., Detroit
Moll, Clarence D. ... 10 Peterboro, Detroit
Molnar, S. K. ... 5635 S. Telegraph, Dearborn
Molner, Joseph G. ... 334 Batcs St., Detroit
Mond, Edward ... 1812 David Broderick Tower, Detroit
Monfort, Willard (E) ... 39 Waverly Ave., Highland Park
Monson, Robert C. ... 16404 E. Warren, Detroit
Montante, Joseph R. ... 14103 Fenkel, Detroit
Montgomery, John C. ... 773 Fisher Bldg., Detroit
Monto, Raymond ... Henry Ford Hospital, Detroit
Mopper, Coleman ... 302 Campau-Holbrook Bldg., Hamstramck
Morand, Louis J. ... 641 David Whitney Bldg., Detroit
Morgan, Donald N. ... 1807 David Whitney Bldg., Detroit
Moriarty, George ... 770 Fisher Bldg., Detroit
Morin, J. B. (L) ... 14416 Buch Road, Detroit
Moritz, H. C. ... 1053 David Whitney Bldg., Detroit
Morley, Harold V. ... 205 Professional Bldg., Detroit
Morley, James A. ... 10520 Plymouth Ave., Detroit
Moroun, S. J. ... 8045 E. Jefferson, Detroit
Morris, Harold L. ... 1069 Fisher Bldg., Detroit
Morse, Plinn F. ... Harper Hospital, Detroit
Morton, David G. ... 16901 W. McNichols, Detroit
Morton, John B. (E) ... 90 E. Warren, Detroit
Mosee, W. Jones ... 5205 Hastings, Detroit
Mosen, Max M. ... 8015 Harper, Detroit
Moss, Ervin B. ... 1907 Pingree, Detroit
Moss, Nathan H. ... 2847 Trumbull, Detroit
Moss, Selma S. ... 469 Fisher Bldg., Detroit
Mossman, J. D. ... 1052 Maccabees Bldg., Detroit
Mott, Carlin P. ... 2395 W. Grand Blvd., Detroit
Muellenhagen, Walter J. ... 603 Boulevard Bldg., Detroit
Munson, Henry T. ... 14344 E. Jefferson, Detroit
Murphy, D. J. ... 10 Peterboro, Detroit
Murphy, E. J. ... 9310 12th St., Detroit
Murphy, John M. ... 710 David Whitney Bldg., Detroit
Murphy, Robert C. ... 1512 St. Antoine, Detroit
Murphy, Robert T. ... 113 Martin Place, Detroit
Murphy, Scipio G. ... 603 E. Forest, Detroit
Murphy, Thomas L. ... Henry Ford Hospital, Detroit
Murphy, W. M. ... 10500 Warren East, Detroit
Murray, William A. ... 11841 Ohio Ave., Detroit
Muske, Paul H. ... 5605 Michigan Ave., Detroit
Musselman, Merle M. ... Wayne County General Hospital, Dept. of Surgery, Eloise
Myers, D. W. ... 224 Professional Bldg., Detroit
Myers, Gordon B. ... 1512 St. Antoine, Detroit
Nagle, John W. ... 114 Maple, Wyandotte
Nahigan, Russell ... 8830 W. McNichols Road, Detroit
Nahoum, Antoine ... 2201 E. Jefferson, Detroit
Naud, Henry J. ... 18456 Grand River Ave., Detroit
Naylor, A. H. ... 10033 Tireman, Dearborn
Naylor, Archibald E. ... 10 Peterboro, Detroit
Neeb, Walter G. ... 16840 E. Warren, Detroit
Neill, Edwin J. ... 8045 E. Jefferson, Detroit
Nelson, Darwin M. ... 153 W. Grand Blvd., Detroit
Nelson, Harry M. ... 1067 Fisher Bldg., Detroit
Nelson, Victor E. ... 7345 Fenkell, Detroit
Newbarr, Arthur A. ... 1060 Fisher Bldg., Detroit
Newman, M. K. ... 16861 Wyoming Ave., Detroit
Nichamin, Samuel J. ... 672 Maccabees Bldg., Detroit
Nickels, Albert W. ... 471 Fisher Bldg., Detroit
Nickerson, I. Dean ... 604 Med. Arts Bldg., 13700 Woodward, Detroit
Nielsen, Aage E. ... 10 Peterboro, Detroit
Nigro, Norman D. ... 10 Peterboro, Detroit
Nill, John B. ... 6030 Grandy, Detroit
Nill, William F. ... 6030 Grandy, Detroit
Noble, William C. ... 4045 W. Jefferson, Ecorse
Noer, Rudolf J. ... 1512 St. Antoine, Detroit
Nolan, Bernard E. ... 932 Maccabees Bldg., Detroit
Nolte, E. C. ... 3919 John R, Detroit
Nolting, Wilfred S. ... 16840 E. Warren, Detroit
Norconk, A. A. ... 859 Fisher Bldg., Detroit
Norcott, Edith Slipson ... 8909 E. Jefferson, Detroit
Norris, Edgar H. ... 607 Lakepointe, Grosse Pointe
Northrop, Arthur K., Sr. (E) ... 17565 Strathmoor Ave., Detroit
Norton, A. B. ... 1076 Maccabees Bldg., Detroit
Norton, Charles S. ... 3503 14th St., Detroit
Novy, R. L. ... 858 Fisher Bldg., Detroit
Nowicki, Joseph A. ... 3841 Junction, Detroit
Nunn, James W. ... 106 W. Davison, Detroit
O'Brien, E. J. ... 307 David Whitney Bldg., Detroit
O'Brien, G. M. ... 2501 West Grand Blvd., Detroit
O'Donnell, Charles H. ... 323 N.Y.C. Terminal, Detroit
O'Donnell, David H. (E) ... 2501 W. Grand Blvd., Detroit
O'Donnell, Dayton H., Jr. ... 2501 W. Grand Blvd., Detroit
Oetting, E. M. ... 8045 E. Jefferson, Detroit
Ohmart, Galen B. ... 8721 E. Jefferson, Detroit
Ohrt, Harold F. ... 285 E. Grand Blvd., Detroit
Okun, Milton H. ... 3261 Sherbourne Road, Detroit
Olen, Alex ... 13100 Harper, Detroit
O'Linn, Francis P. ... 1055 Fisher Bldg., Detroit
Olmsted, George ... 1060 Fisher Bldg., Detroit
Olmsted, William R. (L) ... 219 Broadway Mkt. Bldg., Detroit
Olson, James A. ... Henry Ford Hospital, Detroit
Oman, Cyrus F. ... 12608 Wyoming Ave., Detroit
Oppenheim, J. M. ... 506 Kales Bldg., Detroit
Orecklin, Leo ... 914 Maccabees Bldg., Detroit
Organ, Fred W. ... 10304 Woodward Ave., Detroit
Ormond, John K. ... Henry Ford Hospital, Detroit
O'Rourke, Paul V. ... 307 David Whitney Bldg., Detroit
O'Rourke, R. M. ... 7384 Twelfth St., Detroit
Osius, Eugene A. ... 901 David Whitney Bldg., Detroit
Ott, Harold A. ... 706 Maccabees Bldg., Detroit
Ottaway, John P. ... 1337 David Whitney Bldg., Detroit
Owen, Clarence I. ... 4160 John R, Detroit
Owen, James A. ... 67 E. Forest, Detroit
Palmer, Alice E. ... 3919 John R, Detroit
Palmer, R. J. (E) ... 1466 Chicago Blvd., Detroit
Palcvich, Matthew ... 8733 Joseph Campau, Detroit
Pangburn, L. E. ... 7 Avalon, Detroit
Panic, Stephen M. ... 3341 E. Davison, Detroit
Parker, Benjamin R. ... 17306 W. 7 Mile Road, Detroit
Parker, Walter R. (E) ... 1025 David Whitney Bldg., Detroit
Parr, Robert W. ... 8-265 General Motors Bldg., Detroit
Parsons, John P. ... 808 Grand Marais, Grosse Pointe Park
Pasternacki, Nobert T. ... 6203 Chene, Detroit
Paterson, Walter G. (L) ... 471 Fisher Bldg., Detroit
Pawlowski, Jerome ... 2009 East Grand, Detroit
Payne, Eugene ... Box 118, Roosevelt Park Annex, Detroit
Paysner, Harry A. ... 13700 Woodward Ave., Detroit
Peabody, Charles W. ... 474 Fisher Bldg., Detroit
Pearce, Arthur U. ... Wayne Co. General Hospital, Eloise
Pearman, Charles L. R. ... 1509 Kales Bldg., Detroit
Pearse, Harry A. ... 852 Fisher Bldg., Detroit
Peeble-Meyers, Marjorie ... 5320 John R., Detroit
Peggs, George F. ... 5419 Livernois, Detroit
Penberthy, G. C. ... 1515 David Whitney Bldg., Detroit
Pendy, George V. ... 1808 David Whitney Bldg., Detroit
Pendy, John M. ... 1401 David Whitney Bldg., Detroit
Pensler, Leslie ... 8844 Joy Road, Detroit
Pensler, Meyer ... 8844 Joy Rd., Detroit
Pequegnot, Charles F. (L) ... 6283 W. Outer Drive, Detroit
Perdue, Grace M. ... 762-63 Fisher Bldg., Detroit
Perkin, Frank S. ... 970 Fisher Bldg., Detroit
Perlis, H. L. ... 1036 Maccabees Bldg., Detroit
Peterman, Earl A. ... 801-2 Medical Arts Bldg., Highland Park
Petix, Samuel C. ... 19207 Schaefer, Detroit
Petoskey, Edward A. ... 6004 West Fort, Detroit
Pfeiffer, Rudolph L. ... 469 E. Grand Blvd., Detroit
Picard, John D. ... 13349 Michigan Ave., Dearborn
Piccone, Louisa ... 10605 W. Warren, East Dearborn
Pichette, J. Walton ... 15146 Michigan Ave., Dearborn
Pickard, Orlando W. ... 952 Fisher Bldg., Detroit
Pierce, Frank L. ... 9262 Grand River Ave., Detroit
Pierson, Max J. ... 1030 Maccabees Bldg., Detroit
Pietraszewski, A. W. ... 10338 Jos. Campau, Detroit
Pinckard, Karl G. ... 932 Mason St., Dearborn
Pink, Rose M. ... 11413 Jos. Campau, Detroit
Pinney, L. J. ... 28 W. Adams Ave., Detroit
Pino, Ralph H. ... 208 David Whitney Bldg., Detroit
Piper, Clark C. ... 16180 Woodward Ave., Detroit
Piper, Ralph R. ... 1530 McKinstry Ave., Detroit
Pittman, J. E. ... 1613 David Whitney Bldg., Detroit
Plaggemeyer, H. W. ... 1701 David Whitney Bldg., Detroit
Platz, Carol K. ... 11368 Kelly Road, Detroit
Pliskow, Harold ... 1022 Maccabees Bldg., Detroit
Podezwa, J. W. ... 9300 Joseph Campau, Detroit
Podolsky, Harold M. ... 2785 S. Fort, Detroit
Poirier, Ralph A. ... 1405 Stroh Bldg., Detroit
Polcntz, Charles ... 10 Peterboro, Detroit
Pollack, John J. ... 18200 Wyoming Ave., Detroit
Pool, Walter D. ... 14320 E. Jefferson, Detroit
Poos, Edgar E. ... 554 Fisher Bldg., Detroit

Porretta, Anthony C.....11146 Gratiot, Detroit
Porretta, F. S.....1076 Maccabees Bldg., Detroit
Porter, Howard J.....36911 Goddard Road, Romulus
Posch, J. L.....1410 Kales Bldg., Detroit
Posner, Irving.....12901 W. 7 Mile Road, Detroit
Pratt, Jean P.....18910 Fairway Drive, Detroit
Pratt, Lawrence A.....Doctors Bldg., Suite 800, 3919 John R, Detroit
Prendergast, John J.....341 Massachusetts Ave., Detroit
Priborsky, Benjamin H.....742 Maccabees Bldg., Detroit
Price, Alvin Edwin.....313 David Whitney Bldg., Detroit
Price, A. Hazen.....62 W. Kirby, Detroit
Priddle, Harold.....1512 St. Antoine, Detroit
Priest, R. J.....Henry Ford Hospital, Detroit
Procailo, Alexander B.....13530 Michigan Ave., Dearborn
Proctor, Bruce.....1419 David Whitney Bldg., Detroit
Proud, Robert H.....26151 Huron River Drive, Flat Rock
Pugh, Howard.....1165 David Whitney Bldg., Detroit
Pugh, Richard.....212-214 Schaefer Bldg., Dearborn
Pugliesi, Benedetto.....2650 Arndt St., Detroit
Purcell, Frank H.....1808 David Broderick Tower, Detroit
Purves, William L.....18501 Snowden, Detroit
Quigley, Eugene.....22340 Michigan, Dearborn
Quigley, William.....742 Maccabees Building, Detroit
Quinn, Edward L.....Henry Ford Hospital, Detroit
Rahm, Lambert P.....14411 E. Jefferson, Detroit
Raiford, Frank P.....1308 Broadway, Detroit
Raiford, Frank P., Jr.....1308 Broadway, Detroit
Randall, David S.....7815 E. Jefferson, Detroit
Raskin, Morris.....987 E. Jefferson, Detroit
Rastello, Peter B.....6307 W. Fort St., Detroit
Ratigan, Carl S.....22276 Garrison, Dearborn
Rau, Frederick W.....113 Martin Place, Detroit
Raynor, Harold F.....1340 Maccabees Bldg., Detroit
Reberdy, George J.....2080 W. McNichols Road, Detroit
Rebuck, John W.....Henry Ford Hospital, Detroit
Reder, Ben.....5290 W. Chicago, Detroit
Redfern, William E.....Henry Ford Hospital, Detroit
Reed, E. H. (A).....1033½ Cadieux Road, Grosse Pointe Park
Reed, H. Walter.....8150 Grand River Ave., Detroit
Reed, Ivor E.....305 David Whitney Bldg., Detroit
Rees, Howard C.....15700 Mack Ave., Detroit
Reichling, R. J., Jr.....18514 Mack, Grosse Pointe Farms
Reid, John Gilbert.....1337 David Whitney Bldg., Detroit
Reid, Wesley G.....974 Fisher Bldg., Detroit
Reiff, Morris V.....10241 Joy Road, Detroit
Reinbolt, Charles A. (L).....33570 Quaker Valley Road, Farmington
Reinsh, Ernest R.....18674 Muirland Ave., Detroit
Reisman, Nathan J.....1122 Maccabees Bldg., Detroit
Reisman, S. G.....1078 Maccabees Bldg., Detroit
Rennell, Leo P.....2567 West Grand Blvd., Detroit
Renton, George W.....1530 Seward, Apt. 209, Detroit
Reske, Alven A.....22177 Michigan Ave., Dearborn
Reveno, William S.....951 Fisher Bldg., Detroit
Rexford, W. K.....1314 David Whitney Bldg., Detroit
Reyner, C. E.....Henry Ford Hospital, Detroit
Reynolds, Lawrence.....10 Peterboro, Detroit
Reynolds, R. P.....858 Fisher Bldg., Detroit
Rezanka, H. J.....920 David Whitney Bldg., Detroit
Rhoades, Francis P.....970 Maccabees Bldg., Detroit
Rice, Harold B.....10 Peterboro, Detroit
Rice, Meshel.....2415 W. Grand Blvd., Detroit
Richardson, Allan L.....651 Fisher Bldg., Detroit
Richardson, Robert P.....3714 Monroe Ave., Wayne
Rick, Paul J.....4227 Mt. Elliott, Detroit
Ridge, Ralph W.....114 Maple St., Wyandotte
Rieckoff, George G.....14905 E. Jefferson Ave., Detroit
Rieden, J. A.....1737 David Whitney Bldg., Detroit
Rieg, John F.....5695 W. Vernor Highway, Detroit
Rieger, John B.....1265 David Whitney Bldg., Detroit
Rieger, Mary H.....746 Pallister, Detroit
Riethmiller, Robert.....12400 E. 7 Mile Road, Detroit
Rinkel, Robert W.....6586 Allen Road, Allen Park
Riseborough, E. C.....90 E. Warren, Detroit
Ritter, George.....15319 Sorrento, Detroit
Rizzo, Frank.....1379 Berkshire Road, Grosse Pointe Park
Robb, Edward L.....17380 Livernois, Detroit
Robb, Herbert F.....381 S. Main St., Belleville
Robb, J. Milton.....315 Lakeland, Grosse Pointe Village
Roberts, Arthur J.....1310 Warwick, Lincoln Park
Robertson, Stanley B.....962 Fisher Bldg., Detroit
Robertson, Tom H.....962 Fisher Bldg., Detroit
Robbins, Samuel C.....18963 Jas. Couzens Highway, Detroit
Robinson, Fred L.....13530 Michigan Ave., East Dearborn
Robinson, George W. (L).....1701 E. Grand Blvd., Detroit
Robinson, H. A.....987 E. Jefferson, Detroit
Robinson, Howard.....953 Fisher Bldg., Detroit
Robinson, R. G.....3751 31st St., Detroit
Roeglin, O. F.....14320 E. Jefferson, Detroit
Rogers, Aaron Z.....20451 Mack Ave., Grosse Pointe Woods
Rogers, George E. B.....2108 David Broderick Tower, Detroit
Rogers, James D.....2966 Biddle Ave., Wyandotte
Rogin, James R.....3027 David Stott Bldg., Detroit
Rogoff, Abraham S.....1328 Maccabees Bldg., Detroit
Rohde, Paul C.....912 Maccabees Bldg., Detroit
Rom, Jack.....903 Kales Bldg., Detroit
Roman, Stanley J.....742 Maccabees Bldg., Detroit
Roney, Eugene H.....17187 Schaefer Highway, Detroit
Rosbolt, Oscar P.....8505 Plymouth Road, Detroit
Rose, Bernard,.....65 W. Hancock, Detroit
Rosefield, John L.....630 Maccabees Bldg., Detroit
Rosen, Harold M.....8830 W. McNichols, Detroit
Rosen, T. S.....18700 Meyers, Detroit
Rosenbaum, Herbert.....19776 Snowden Ave., Detroit
Rosenbloom, Alvin B.....Wayne Co. General Hospital, Eloise
Rosenthal, Louis H.....1318 Maccabees Bldg., Detroit
Rosenthal, Samuel.....16350 Hamilton, Detroit
Rosenwach, Felix F.....20429 W. Seven Mile Road, Detroit
Rosenzweig, Saul.....2114 David Broderick Tower, Detroit
Ross, Ben C.....4493 14th Street, Detroit
Ross, Donald G.....654 St. Clair at Kercheval, Grosse Pointe
Ross, Hyman.....19149 Joy Road, Detroit
Rotarius, E. M.....5800 Courville, Detroit
Roth, Edward T.....640 E. Grand Blvd., Detroit
Roth, Theodore I.....60 W. Hancock, Detroit
Rothbart, Harold B.....773 Fisher Bldg., Detroit
Rothman, Emil D.....722 Maccabees Bldg., Detroit
Rothman, H. R.....20171 Canterbury, Detroit
Rottenberg, Leon.....13419 Fenkell, Detroit
Rowda, Michael S.....2001 E. Grand Blvd., Detroit
Rucker, Julian J.....668 Farnsworth Ave., Detroit
Ruedemann, A. D.....1633 David Whitney Bldg., Detroit
Rueger, Milton J.....708 Kales Bldg., Detroit
Rueger, Ralph C.....9149 E. Jefferson, Detroit
Runge, Edward F.....14 Abbot Lane, Dearborn
Rupprecht, Emil F.....5525 W. Chicago Blvd., Detroit
Rush, Alva D.....341 Massachusetts Ave., Detroit
Ruskin, Samuel H.....1306 David Broderick Tower, Detroit
Russell, John C.....2934 Davidson St. E., Detroit
Rutzen, Arthur C.....871 Fisher Bldg., Detroit
Ryan, Charles F.....5837 W. Vernor Hwy., Detroit
Ryan, W. D.....5837 W. Vernor Hwy., Detroit
Rydzewski, Jos. B.....12170 Jos. Campau, Detroit
Ryerson, Frank L.....307 Fine Arts Bldg., Detroit
Ryerson, F. S.....28 W. Adams, Suite 802, Detroit
Sack, Anthony G.....2567 W. Grand Blvd., Detroit
Sa'di, Lutfi M.....525 Professional Bldg., Detroit
Sadler, Henry H., Jr.....1512 St. Antoine, Detroit
Sage, Bernard A.....1013 Haigh, Dearborn
Sage, Edward O. (E).....415 Burns Drive, Detroit
Sage, Thomas.....7815 E. Jefferson, Detroit
Sager, Edward L.....13902 Gratiot Ave., Detroit
St. Amour, Hector J.....9545 Grand River, Detroit
St. Louis, R. J.....10909 W. Jefferson, River Rouge
Sakorraphos, Stelios N.....1346 Broadway, Detroit
Salchow, Paul T.....334 Bates St., Detroit
Salisbury, C. S.....527 Professional Bldg., Detroit
Salowich, John N.....15235 Harrison, Allen Park
Saltzstein, Harry C.....966 Fisher Bldg., Detroit
Sand, Harry H.....2474 S. Telegraph, Dearborn
Sander, Irvin W.....5050 Cass Ave., Detroit
Sanders, Alex W.....920 Maccabees Bldg., Detroit
Sanderson, Alvord R.....978 Pemberton Road, Grosse Pointe Park
Sanderson, Suzanne M.....
The Sheraton Hotel, 15 E. Kirby Ave., Detroit
Sandler, Nathaniel.....1004 Kales Bldg., Detroit
Sands, G. E.....12746 Broad St., Detroit
Sandweiss, D. J.....9739 Dexter Blvd., Detroit
Sapala, M. Andrew.....6356 Michigan, Detroit
Saraf, L. B.....14727 E. Jefferson, Detroit
Sargent, William R.....727 Clairmont, Detroit
Sauk, John J.....640 Maccabees Bldg., Detroit
Sauter, Simon H.....1082 E. Grand Blvd., Detroit
Savignac, Eugene M.....4777 E. Outer Drive, Detroit
Scarney, Herman D.....573 Fisher Bldg., Detroit
Schaefer, R. L., Lt. USNR (M).....Box 686, Coco Solo, Canal Zone
Schaefer, Robert L.....1204 Kales Bldg., Detroit
Schaeffer, Martin.....1404 David Broderick Tower, Detroit
Scheinberg, Schayel.....966 Fisher Bldg., Detroit
Schembeck, I. S.....1655 David Whitney Bldg., Detroit
Schenden, Augustine J.....4001 Oakwood Blvd., Melvindale
Schiller, A. E.....2008 David Broderick Tower, Detroit
Schillinger, H. K.....4838 Neckel, Dearborn
Schinagel, Geza.....4400 Livernois, Detroit
Schirack, Ray D.....15850 E. Warren Ave., Detroit
Schkloven, Norman.....532 Maccabees Bldg., Detroit
Schlafer, Nathan H.....1806 David Broderick Tower, Detroit
Schlemer, John H.....13826 Dexter Blvd., Detroit
Schlesinger, Henry.....13534 Woodward, Detroit
Schmaltz, John D.....1701 David Broderick Tower, Detroit
Schmidt, Harry E.....667 Fisher Bldg., Detroit
Schmidt, Milton R.....2615 W. Jefferson, Trenton
Schmidt, Werner F.....1807 Stroh Bldg., Detroit
Schmier, Burton L.....5440 Cass Ave., Detroit
Schmitt, Norman L.....10127 W. McNichols, Detroit
Schneck, R. J.....641 David Whitney Bldg., Detroit
Schneider, Curt P.....655 Fisher Bldg., Detroit
Scholes, Daniel R.....113 Martin Place, Detroit
Schooten, Sarah S.....954 Maccabees Bldg., Detroit
Schorr, Robert L. (E).....1325 E. Jefferson, Detroit
Schraer, Paul H.....1122 East Grand Blvd., Detroit
Schreiber, Frederic.....10 Peterboro, Detroit
Schroeder, Carlisle F.....7815 E. Jefferson, Detroit
Schulte, Carl H.....3919 John R, Detroit
Schultz, Ernest C.....840 David Whitney Bldg., Detroit
Schwartz, Ben.....275 W. Grand Blvd., Detroit
Schwartz, Louis A.....861 Fisher Bldg., Detroit
Schwartz, Oscar D.....7441 West Seven Mile Road, Detroit
Schwartzberg, Jos. A.....5001 14th St., Detroit
Schwarz, Francis S., Jr.....1633 David Whitney Bldg., Detroit
Schweigert, C. F.....10627 Cadieux, Detroit
Sciarrino, Stanley V.....15388 Livernois, Detroit
Scott, R. J.....7333 W. 7 Mile Road, Detroit
Scott, William J.....79 Kercheval, Grosse Pointe Farms
Scoville, Victor.....1429 David Whitney Bldg., Detroit

Scruton, Foster D. ..... 5419 Livernois, Detroit
Seabrooks, B. F. ..... 9136 Oakland Ave., Detroit
Sears, Charles H. ..... Detroit Receiving Hospital, Detroit
Secord, Eugene W. ..... 761 Fisher Bldg. Detroit
Seeley, James B. ..... 13530 Michigan Ave., Dearborn
Seeley, Ward F. ..... 1807 David Whitney Bldg., Detroit
Segar, Laurence F. ..... 1410 David Broderick Tower, Detroit
Seibert, Alvin H. ..... 1180 Bedford Road, Grosse Pointe Park
Seiferlein, Archie L. ..... 508 David Whitney Bldg., Detroit
Selby, C. D. ..... 1916 Military, Port Huron
Self, William G. ..... 19365 Mack Ave., Detroit
Sellers, Charles W. ..... 2314 W. Grand Blvd., Detroit
Sellers, Graham. ..... 2405 W. McNichols Road, Detroit
Serrester, Bernard F. ..... 18650 W. Warren, Detroit
Seski, Arthur G. ..... 863 Fisher Bldg., Detroit
Sewell, George S. ..... 1116 David Whitney Bldg., Detroit
Shafarman, Eugene M. ..... 5320 John R, Detroit
Shaffer, Jos. H. ..... Henry Ford Hospital, Detroit
Shaffer, Loren W. ..... 3852 Bishop Road, Detroit
Shafter, Royce R. ..... 655 Fisher Bldg., Detroit
Shanoski, Stanley J. ..... 11301 E. McNichols, Detroit
Shapiro, H. D. ..... 125 W. Saginaw, Lansing
Shapiro, I. Allen. ..... 4400 Livernois, Detroit
Shapiro, Jacob. ..... 9110 Kercheval, Detroit
Shapiro, Oscar U. ..... 11544 Dexter, Detroit
Shapiro, Reuben I. ..... 636 Maccabees Bldg., Detroit
Sharrer, Charles H. ..... 873 Lakewood, Detroit
Shaw, N. D. ..... 8830 W. McNichols, Detroit
Shelden, Warren E. ..... 17300 Schaeffer, Detroit
Sheldon, J. A. ..... 1435 Three Mile Drive, Grosse Pointe Park
Shelton, C. F. ..... 910 David Broderick Tower, Detroit
Sherman, William LaRue. ..... 10 Peterboro, Detroit
Sherrin, Edgar R. ..... 9203 Grand River Ave., Detroit
Sherwood, DeWitt L. (L) ..... 6170 Michigan Ave., Detroit
Shewchuk, Alexander P. ..... 7300 Allen Road, Allen Park
Shields, William L. ..... 18600 Woodward, Detroit
Shifrin, Peter G. ..... 767 Fisher Bldg., Detroit
Shipton, W. Harvey. ..... 2679 Montclair Ave., Detroit
Shiovitz, Louis. ..... 5419 Michigan Ave., Detroit
Shlain, Benjamin. ..... 10244 W. 7 Mile Road, Detroit
Shortz, Gerald. ..... 504 Doctors Bldg., 3919 John R, Detroit
Shotwell, Carlos W. (L) ..... 10 Peterboro, Detroit
Shulak, Irving B. ..... 1714 David Broderick Tower, Detroit
Shulman, Herschel. ..... 622 Maccabees Bldg., Detroit
Shumaker, E. J. ..... 22691 Michigan, Dearborn
Siddall, Roger S. ..... 955 Fisher Bldg., Detroit
Sieber, Edward H. ..... 15146 Michigan Ave., Dearborn
Siefert, John L. ..... 12720 E. Outer Drive, Detroit
Siefert, William A. ..... 16849 Grand River, Detroit
Siegel, Henry. ..... 7441 W. 7 Mile Road, Detroit
Sigler, John W. ..... Henry Ford Hospital, Detroit
Sill, Jack A. ..... Receiving Hospital, Detroit
Silvarman, I. Zable. ..... 9103 Van Dyke, Detroit
Silver, I. W. ..... 20000 W. Chicago, Detroit
Silverman, Maurice M. ..... 3925 Joy Road, Detroit
Silverman, Max. ..... 11340 Dexter Blvd., Detroit
Simmons, Donald R. ..... 1609 David Broderick Tower, Detroit
Simon, Emil R. ..... 776 Maccabees Bldg., Detroit
Simon, Heinz G. ..... 16131 Mack Ave., Detroit
Simpson, Clarence E. (L) ..... 1210 Kales Bldg., Detroit
Sinclair, James W. ..... 11801 Morang Drive, Detroit
Singer, Floyd W. ..... 13530 Michigan, Dearborn
Sippola, George W. ..... 13603 LaSalle, Detroit
Sisson, John M. ..... 17201 W. McNichols, Detroit
Skinner, W. Clare. ..... 9815 Grand River, Detroit
Sklover, I. J. ..... 1326 E. 7 Mile Road, Detroit
Skrzycki, Stephen S. ..... 10040 Joseph Campau, Detroit
Skully, Edward J. ..... 14000 Linnhurst, Detroit
Sladen, F. J. ..... Henry Ford Hospital, Detroit
Slahetke, Vincent E. ..... 7435 Michigan, Detroit
Slaughter, Fred M. ..... 455 E. Adams, Detroit
Slaugenhaupt, J. G. ..... 418 Transportation Bldg., Detroit
Slazinski, Leo W. ..... 7618 Michigan, Detroit
Slevin, John G. ..... 1514 David Broderick Tower, Detroit
Sliwin, E. P. ..... 641 David Whitney, Detroit
Slusky, Joseph. ..... 1826 Oakman Blvd., Detroit
Small, Henry. ..... 11507 Hamilton, Detroit
Smathers, Homer M. ..... 14669 Longacre Road, Detroit
Smeck, Arthur R. ..... 1036 Waterman, Detroit
Smith, Clarence V. ..... 1716 E. Grand Blvd., Detroit
Smith, Claude A. ..... 15 Linden St., River Rouge
Smith, F. J. ..... Henry Ford Hospital, Detroit
Smith, Henry L. ..... 16401 Grand River Ave., Detroit
Smith, J. Allen. ..... 14140 Puritan, Detroit
Smith, Richmond. ..... Henry Ford Hospital, Detroit
Snedeker, Bernard C. ..... 18800 Woodward Ave., Detroit
Snow, L. W. ..... 508 W. Main St., Northville
Snyder, Arthur M. ..... 503 Medical Arts Bldg., Detroit
Sobel, Robert A. ..... 612 Kales Bldg., Detroit
Sokolov, Raymond A. ..... 755 Fisher Bldg., Detroit
Somers, Donald C. ..... 3919 John R, Detroit
Sonda, Lewis P. ..... 552 David Whitney Bldg., Detroit
Sorock, Milton L. ..... 3008 David Stott Bldg., Detroit
Spademan, Loren C. ..... 1013 David Whitney Bldg., Detroit
Spalding, Edward D. ..... 10 Peterboro, Detroit
Sparling, Harold I. ..... 251 Main St., Northville
Speck, Carlos C. ..... 6525 Park Ave., Allen Park
Spector, Maurice J. ..... 12504 E. Jefferson, Detroit
Spero, Gerald D. ..... 2311 David Broderick Tower, Detroit
Sperry, Frederick L. ..... 463 Fisher Bldg., Detroit
Spiro, Adolph. ..... 11255 Mack Ave., Detroit
Springborn, B. R. ..... 15818 E. Warren, Detroit
Sprunk, Carl J. ..... 869 Fisher Bldg., Detroit
Squires, W. H. ..... Wayne County Gen'l Hosp., Eloise
Stafford, Frank W. J. ..... 1111 Griswold, Detroit
Stalker, Hugh. ..... 15315 E. Jefferson, Grosse Pointe
Stamell, B. B. ..... 658 Maccabees Bldg., Detroit
Stamell, Meyer. ..... 14634 Greenfield, Detroit
Stanton, James M. ..... 1001 Stroh Building, Detroit
Stanton, Myron R. ..... 3400 W. Warren, Detroit
Stapleton, William J., Jr. (E) ..... 641 David Whitney Bldg., Detroit
Starrs, Thomas C. ..... 509 Fox Theatre Bldg., Detroit
Staub, Howard P. ..... Box 32 R. Park, Detroit
Stearns, A. B. ..... 504 Doctors Bldg., Detroit
Stebbins, Charles E. ..... 856 Fisher Bldg., Detroit
Steele, Hugh H. ..... Henry Ford Hospital, Detroit
Stefani, Ernest L. ..... 4126 W. McNichols, Detroit
Stefani, Raymond T. ..... 13516 Stoepel, Detroit
Steffensen, Ellis. ..... Henry Ford Hospital, Detroit
Stein, Albert H. ..... 19334 San Juan Drive, Detroit
Stein, Edward. ..... 909 Kales Bldg., Detroit
Stein, James R. ..... 125 W. 9 Mile Road, Ferndale
Stein, Saul Charles. ..... 22650 Van Dyke, VanDyke
Steinbach, Albert. ..... 1229 David Whitney Bldg., Detroit
Steinbach, Henry B. ..... 1229 David Whitney Bldg., Detroit
Steinberger, Eugene. ..... 6409 W. Fort St., Detroit
Steiner, Frederick. ..... 29627 Ford Road, Garden City
Steiner, L. J. ..... Henry Ford Hospital, Detroit
Steinhardt, Milton J. ..... 658 Maccabees Bldg., Detroit
Stellhorn, Chester E. ..... 12900 W. 7 Mile Road, Detroit
Stellhorn, Mary Christine. ..... 16616 Mack Avenue, Detroit
Stenborg, W. P. ..... 19445 Votrobeck Drive, Detroit
Stephens, Homer C. ..... 4302 McGraw, Detroit
Sterba, Richard F. ..... 1130 Parker, Detroit
Sterling, Robert R. ..... 1541 David Whitney Bldg., Detroit
Stern, Harry L. ..... 15826 James Couzens Highway, Detroit
Stern, Leonard H., ... 22748 Van Dyke, Van Dyke
Stern, Louis D. ..... 1049 David Whitney Bldg., Detroit
Stevens, Charles. ..... 14934 Ward, Detroit
Stevenson, Charles. ..... 1512 St. Antoine, Detroit
Stewart, Harry L., Jr. ..... Henry Ford Hospital, Detroit
Stewart, Maitland N. ..... 1069 Fisher Bldg., Detroit
Stewart, Thomas O. ..... 17187 Schaefer Highway, Detroit
Stiefel, Daniel M. ..... 1563 David Whitney Bldg., Detroit
Stillwater, Karl. ..... 1636 Burlingame, Detroit
Stirling, Alex M. ..... 10 Peterboro, Detroit
Stith, Dwight E. ..... 9101 Oakland, Detroit
Stobbe, Godfrey D. ..... Grace Hospital, Detroit
Stocker, Harry. ..... 5718 Devonshire, Detroit
Stocker, Lawrence L. ..... 2311 David Broderick Tower, Detroit
Stockwell, B. W. ..... 703 Doctors Bldg., 3919 John R, Detroit
Stokfisz, Thaddeus. ..... 7012 Michigan Ave., Detroit
Straith, Claire L. ..... 1713 David Whitney Bldg., Detroit
Strand, Martin E. ..... 22400 Cherry Hill, West Dearborn
Stricker, Henry D. ..... 5624 W. Fort St., Detroit
Strickroot, Fred L. ..... 707 Kales Bldg., Detroit
Strohschein, Don F. ..... 1063 Fisher Bldg., Detroit
Stryker, Joan C. ..... 21604 E. River Road, Grosse Isle
Stryker, Walter A. ..... Wyandotte General Hospital, Wyandotte
Stubbs, C. T. ..... 13930 Woodward Ave., Detroit
Stubbs, Harold W. ..... 13930 Woodward Ave., Detroit
Stuecheli, Milton B. ..... 1230 Bishop Road, Grosse Pointe
Stump, George D. ..... 1314 David Whitney Bldg., Detroit
Sugar, David I. ..... 13120 Broadstreet, Detroit
Sugar, H. Saul. ..... 311 Stroh Bldg., Detroit
Sugarman, Marcus H. ..... 9739 Dexter, Detroit
Sullivan, Hugh A. ..... 1053 David Whitney Bldg., Detroit
Summers, William A. ..... 1613 David Whitney Bldg., Detroit
Summers, William S. ..... 1613 David Whitney Bldg., Detroit
Surbis, John P. ..... 493 W. Grand Blvd., Detroit
Sutherland, Jacob M. ..... 662 Fisher Bldg., Detroit
Swanson, Carl W. ..... 936 Alter Road, Detroit
Swanson, Cleary N. ..... 16921 James Couzens Highway, Detroit
Swanson, Robert G. ..... 936 Alter Road, Detroit
Swartz, Fred G., Jr. ..... 1229 David Whitney Bldg., Detroit
Sweeny, Donald, N., Jr. ..... 8445 E. Jefferson, Detroit
Swift, Karl L. ..... 869 Fisher Bldg., Detroit
Switzer, Bertrand C. ..... 17354 James Couzen Highway, Detroit
Syphax, Charles S., Jr. ..... 1819 E. Davison, Detroit
Szejda, J. C. ..... 3003 Harper, Detroit
Szilagyi, D. Emerick. ..... Henry Ford Hospital, Detroit
Szladek, F. J. ..... 4045 W. Jefferson, Ecorse
Szmigiel, A. J. ..... 2610 E. Forest, Detroit
Szokolay, Joseph P. ..... 2694 Carter St., Detroit
Talbot, Frank G. ..... 18101 James Couzens, Detroit
Tallant, Edward J. ..... 14001 Greenfield, Detroit
Tamblyn, E. J. ..... 15315 E. Jefferson, Detroit
Tapert, Julius C. ..... 888 Chalmers, Detroit
Tasker, Helen. ..... 76 W. Adams, Detroit
Tassie, Ralph N. ..... 14060 Saratoga, Detroit
Tatelis, Gabriel. ..... 1011 E. Grand Blvd., Detroit
Tatelman, Maurice. ..... 410 Kales Bldg., Detroit
Taurence, William H. ..... 1860 Ford, Wyandotte
Taylor, Aaron. ..... 19438 Whitcomb, Detroit
Taylor, Ivan B. ..... 504 Doctor Bldg., 3919 John R, Detroit
Taylor, Nelson M. ..... 654 St. Clair, Grosse Pointe
Taylor, Reu Spencer (L) ..... 4342 West Vernor Hwy., Detroit
Tazzioli, Henry A. ..... 1260 Marlborough, Detroit
Tear, Malcolm J. ..... 5008 Trumbull Ave., Detroit
Teitelbaum, Myer. ..... 405 Kales Bldg., Detroit
Tenaglia, Thomas A. ..... 9 Salliotte, Ecorse
Tenerowicz, Rudolph G. ..... 2925 Lehman, Detroit
Texter, Elmer C. ..... 7457 Gratiot Ave., Detroit
Thompson, Arthur Lee. ..... 6125 Scotten, Detroit

Thompson, H. E. ..... 2212 Clinton, Detroit
Thompson, H. O. ..... 6014 W. Fort, Detroit
Thompson, W. A. ..... 6125 Scotten, Detroit
Thomson, D. C. (A) ..... 206383 E. River Road, Grosse Isle
Thornell, Harold E. ..... 4839 Beaubien, Detroit
Thosteson, George C. ..... 1139 David Whitney Bldg., Detroit
Thumann, R. C., Jr. ..... 1757 David Whitney Bldg., Detroit
Toaz, Robert B. ..... 13700 Woodward, Detroit
Toepel, Otto T. (E) ..... 195 E. Grand Blvd., Detroit
Tomsu, Charles L. ..... 6170 Michigan Ave., Detroit
Torres, Estelle ..... 3985 Caniff, Detroit
Townsend, Frank M. ..... 1551 Trumbull, Detroit
Tregenza, W. K. ..... 18530 Grand River, Detroit
Tremain, Harold L. ..... 106 W. Davison, Detroit
Troester, George A. ..... 1140 Maccabees Bldg., Detroit
Trombino, James F. ..... 2567 W. Grand Blvd., Detroit
Trombley, Bryan ..... 755 David Whitney Bldg., Detroit
Trombley, Joseph J., Jr. ..... 18933 Grand River, Detroit
Truba, Paul K. ..... 5419 Livernois, Detroit
Truszkowski, Edward G. ..... 11838 Jos. Campau, Detroit
Trythall, S. W. ..... 13300 Livernois, Detroit
Tulloch, John ..... 923 David Whitney Bldg., Detroit
Tupper, Roy D. ..... 15101 W. 7 Mile Road, Detroit
Turbett, Claude W. ..... 4230 Commonwealth Ave., Detroit
Turcotte, Vincent J. ..... 14015 Gratiot, Detroit
Turkel, Henry ..... 650 W. Boston Blvd., Detroit
Turnbull, Jack V. ..... 22340 Michigan Ave., Dearborn
Tuynman, Peter E. ..... 15865 Wyoming, Detroit
Tyson, William E. E. (L) ..... 2949 Gratiot, Detroit
Ujda, Chester J. ..... 35080 Chestnut, Wayne
Ulbrich, H. L. ..... 5029 Seneca, Detroit
Ulrich, Willis H. ..... 22365 Grand River, Detroit
Umphrey, Clarence E. ..... 13331 Livernois Ave., Detroit
Unsdek, H. E. ..... 3954 Garland Ave., Detroit
Usher, William Kay ..... 15605 Kercheval, Detroit
Vale, C. Fremont ..... 1306 David Whitney Bldg., Detroit
VanBecelaere, L. H. ..... 10 Bourassa, Ecorse
Van Eck, James E. ..... 9165 Whittier, Detroit
VanGundy, Clyde R. ..... 716 Junction Ave., Detroit
Van Rhee, George ..... 10 Peterboro, Detroit
Van Riper, Steven L. ..... 1059 Seminole, Detroit
Vardon, Colin C. ..... 13700 Woodward, Detroit
Vardon, Edward M. ..... 12897 Woodward Ave., Detroit
Vasu, V. O. ..... 4829 Woodward, Detroit
Vogel, Hyman A. ..... 6319 Michigan, Detroit
Vokes, Milton D. ..... 10182 Gratiot Ave., Detroit
Vonder Heide, E. C. ..... 17190 Strathmore, Detroit
Vossler, A. E. ..... 825 David Whitney Bldg., Detroit
Waddington, Jos. E. G. (E) ..... 3818 Northwestern, Detroit
Waggoner, C. Stanley ..... 541 David Whitney Bldg., Detroit
Waggoner, Lyle G. ..... 404 David Whitney Bldg., Detroit
Wainger, Max J. ..... 1012 Eaton Tower, Detroit
Wainstock, Michael ..... 1508 David Broderick Tower, Detroit
Wakeman, Everal M. ..... 22276 Garrison, Dearborn
Waldbott, George L. ..... 10 Peterboro, Detroit
Walker, J. Paul ..... 15510 Mack Ave., Grosse Pointe
Walker, Roger V. ..... 1255 David Whitney Bldg., Detroit
Wallace, S. Willard ..... 7815 E. Jefferson, Detroit
Walls, Arch ..... 17201 W. McNichols Road, Detroit
Walser, Howard Carleton ..... 566 Fisher Bldg., Detroit
Walsh, C. R. ..... 935 Hollywood Place, West Palm Beach, Fla.
Walsh, Francis P. ..... 474 Fisher Bldg., Detroit
Walters, Albert G. ..... 11078 Gratiot Ave., Detroit
Walter, Arthur W. ..... 14201 Rutland, Detroit
Waltz, Paul J. ..... 16127 Woodward Ave., Detroit
Warden, Horace F. W. ..... 8011 W. Vernor Highway, Detroit
Warner, J. F. ..... 1508 David Broderick Tower, Detroit
Warner, P. L. ..... 10314 Puritan, Detroit
Warren, Irving A. ..... 1406 David Broderick Tower, Detroit
Warren, Wadsworth ..... 1144 David Whitney Bldg., Detroit
Wasserman, Lewis C. ..... 562 Maccabees Bldg., Detroit
Waszak, Charles J. ..... 2501 West Grand Blvd., Detroit
Watson, Douglas J. ..... 14001 Greenfield, Detroit
Watson, Harwood G. ..... 935 S. Military, Dearborn
Watson, J. Edwin ..... 2536 W. Grand Blvd., Detroit
Watson, Robert W. ..... 18916 Woodward, Detroit
Watts, Frederick B. ..... 16321 Mack, Detroit
Watts, John C. ..... 7360 Twelfth St., Detroit
Watts, John J. ..... 7360 Twelfth St., Detroit
Wayne, Morris A. ..... 15930 Livernois, Detroit
Weaver, Clarence E. ..... 113 Martin Place, Detroit
Weaver, Delmar F. ..... 571 Fisher Bldg., Detroit
Weber, Karl W. ..... 16400 E. Warren, Detroit
Webster, John E. ..... 840 David Whitney Bldg., Detroit
Weed, Milton R. ..... 1997 E. Grand Blvd., Detroit
Wehenkel, Albert M. (L) ..... 7356 12th St., Detroit
Weidner, J. H. ..... Ford Motor Co., 3000 Schaefer, Dearborn
Weiner, Maurice B. ..... 1114 Maccabees Bldg., Detroit
Weingarden, David H. ..... 13240 Vassar Drive, Detroit
Weinstein, Jacob ..... 4237 Grand River Ave., Detroit
Weisberg, A. Allen ..... 20 W. Seven Mile Road, Detroit
Weisberg, Harry ..... 618 Maccabees Bldg., Detroit
Weisberg, Jacob ..... 618 Maccabees Bldg., Detroit
Weisenthal, Irvin ..... 5764 Woodward, Detroit
Weiser, Frank A. ..... 4162 John R, Detroit
Weiss, Casimer P. ..... 10040 Joseph Campau, Detroit
Weiss, J. G. ..... 2237 W. Grand Blvd., Detroit
Welch, John H. ..... 5662 W. Vernor Highway, Detroit
Weller, Charles N. ..... 1136 David Whitney Bldg., Detroit
Wells, Martha ..... 760 Fisher Bldg., Detroit
Weltman, Carl G. ..... 1701 David Whitney Bldg., Detroit
Wendel, Jacob S. ..... 744 David Whitney Bldg., Detroit
Wenzel, Jacob F. ..... 1006 Kales Bldg., Detroit
Weston, Bernard ..... 3200 Tyler, Detroit
Weston, Earl E. ..... 18101 James Couzens Highway, Detroit
Weston, Horace L. ..... 703 Stroh Bldg., Detroit
Weyher, Russell F. ..... 2437 S. LaSalle Gardens, Detroit
Whalen, Neil J. ..... 1515 David Whitney Bldg., Detroit
Wharton, Thomas V. ..... 2853 Biddle, Wyandotte
Wheeler, Stewart C. ..... 16116 W. McNichols Road, Detroit
Whelan, Joseph L. ..... Mayo Clinic, Rochester, Minn.
Whinnery, Randall A. ..... 752 Fisher Bldg., Detroit
White, Donald ..... 1580 W. Fort St., Lincoln Park
White, Milo R. ..... Henry Ford Hospital, Detroit
White, Milton W. ..... 2329 E. Grand Blvd., Detroit
White, Prosper D. ..... 66 Tuxedo, Highland Park
White, Theodore M. ..... 7159 Michigan Ave., Detroit
Whitehead, Leston S. ..... Henry Ford Hospital, Detroit
Whitehead, Walter K. ..... 1129 David Whitney Bldg., Detroit
Whiteley, Robert K. ..... 541-3 David Whitney Bldg., Detroit
Whitney, Elmer L. ..... Henry Ford Hosp., Detroit
Whitney, Rex E. ..... 5525 W. Chicago Blvd., Detroit
Whittaker, Alfred H. ..... 1427 E. Jefferson, Detroit
Wiant, John L. ..... 513 Professional Bldg., Detroit
Wickham, A. B. (L) ..... 2232 Evergreen, Phoenix, Ariz.
Wiechowski, Henry E. ..... 10345 Joseph Campau, Detroit
Wiener, Israel ..... 8431 Lawton, Detroit
Wiener, Morton ..... 612 Kales Bldg., Detroit
Wietersen, Fred K. ..... 260 Manor R., Rte. 2, Birmingham
Wight, Fred B. ..... 1048 David Whitney Bldg., Detroit
Wilcox, L. F. ..... 110 Professional Bldg., Detroit
Wilhelm, Seymour ..... 3925 Joy Road, Detroit
Wilkinson, A. P. ..... 974 Fisher Bldg., Detroit
Williams, Clarence J. ..... 15324 E. Jefferson, Detroit
Wills, Josephus N. ..... 2016 Chene St., Detroit
Wilner, I. A. ..... 17239 W. McNichols Road, Detroit
Wilson, Andrew ..... 4741 Spokane, Detroit
Wilson, Gerald A. ..... 4741 Spokane, Detroit
Wilson, M. C. ..... 11948 Outer Drive, Detroit
Wilson, Stuart C. ..... 10 Peterboro, Detroit
Wilson, Walter J. (E) ..... 749-753 David Whitney Bldg., Detroit
Wilson, W. J., Jr. ..... 749 David Whitney Bldg., Detroit
Winton, George J. ..... 1007 David Stott Bldg., Detroit
Wishropp, E. A. ..... 227 Kenwood Court, Grosse Pointe
Wissman, H. C. ..... 6356 W. Fort, Detroit
Wittenberg, Arthur A. ..... 7101 W. Chicago, Detroit
Wittenberg, Samson S. ..... 934 Maccabees Bldg., Detroit
Wittenberg, Sydney S. ..... 4400 Livernois, Detroit
Witter, Joseph A. ..... 344 Glendale, Detroit
Witter, Frank C. (L) ..... 344 Glendale Ave., Detroit
Witus, Carl ..... 8045 E. Jefferson, Detroit
Witus, Morris ..... 9036 Dexter Blvd., Detroit
Wolfe, Max O. ..... 7-260 General Motors Bldg., Detroit
Wollank, Helen Wilson ..... 15324 E. Jefferson, Detroit
Wollenberg, R. A. C. ..... 939 David Whitney Bldg., Detroit
Wood, Alfred L. ..... 14741 Michigan Ave., Dearborn
Wood, Kenneth A. ..... 3919 John R., Detroit
Wood, Wilford C. ..... 463 Fisher Bldg., Detroit
Woods, W. Edward ..... 18750 Woodward Ave., Detroit
Woodworth, William P. ..... 17387 Quincy, Detroit
Worzniak, Joseph J. ..... 2312 Biddle St., Wyandotte
Wreggit, Winston R. ..... 79 Highland Ave., Detroit
Wright, Lance S. (M) ..... USPHS Medical Center, Hot Springs, Ark.
Wruble, Joseph ..... 411 Seldon, Detroit
Wunsch, Richard E. ..... 7815 E. Jefferson, Detroit
Yates, Arthur J. ..... 8045 E. Jefferson, Detroit
Yesayian, H. G. ..... 609 Kales Bldg., Detroit
Yetzer, William J. ..... 760 Fisher Bldg., Detroit
Yott, William J. ..... 15744 Harper Ave., Detroit
Young, Donald A. ..... 14807 W. McNichols, Detroit
Young, Donald C. ..... 1197 Edison, Detroit
Young, Lloyd B. ..... 857 Fisher Bldg., Detroit
Young, Viola M. ..... 10 Peterboro, Detroit
Zabinski, Edward J. ..... 19036 Van Dyke, Detroit
Zackheim, Herschel ..... 22265 Garrison, Dearborn
Zawadzki, Edward S. ..... 14961 Piedmont Ave., Detroit
Zbudowski, Myron R. ..... 2758 Belmont, Hamtramck
Zemens, Joseph L. ..... 1580 E. Grand Blvd., Detroit
Ziegler, Robert F. ..... Henry Ford Hospital, Detroit
Zinn, George H. ..... 641 David Whitney Bldg., Detroit
Zinterhofer, John ..... 27621 Santa Barbara Drive, Birmingham
Zolliker, Margaret ..... 20390 Harper, Detroit
Zonnis, Marian E. ..... 672 W. Hancock, Detroit
Zukowski, Henry J. ..... 1916 Manchester Blvd., Grosse Pte. Woods
Zukowski, Sigmund A. ..... 6626 Van Dyke, Detroit

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Westervelt, Herbert O....Benton Harbor
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Kelleher, Mrs. Geo.....Battle Creek
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Kingsley, Mrs. P. C.....Battle Creek
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Leitch, Mrs. Robert.....Union City
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Huron, Mrs. W. H.....Iron Mountain
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McEachran, Mrs. H. D.....Iron Mountain
Menzies, Mrs. Clifford.....Iron Mountain
Palm, Mrs. T. E.....Crystal Falls
Schlitter, Mrs. R. E.....Iron Mountain
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Steinke, Mrs. C. G.....Kingsford
Schroeder, Mrs. John.....Iron Mountain
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Goff, Mrs. Sidney B.....Eaton Rapids
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Stucky, Mrs. George C.....Charlotte
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Gauntlett, Mrs. J. W.....Traverse City
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Haberlein, Mrs. Chas.....Traverse City
Hamilton, Mrs. Earl.....Traverse City
Hyslop, Mrs. William.....Traverse City
Jerome, Mrs. Jerome T.....Traverse City
Kyselka, Mrs. Harry.....Traverse City
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Lossman, Mrs. Robert.....Williamsburg
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Nickels, Mrs. M. M.....Traverse City
Noyes, Mrs. Guy.....Traverse City
Osterlin, Mrs. Mark.....Traverse City
Pike, Mrs. Donald.....Traverse City
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Sladek, Mrs. E. F.....Traverse City
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Benson, Mrs. John, Sr.....Flint
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Curtin, Mrs. John.....Flint
Cutler, Mrs. Campbell.....Flint
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Gorne, Mrs. S. S.....Flint
Griffin, Mrs. Ernest.....Flint
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Guile, Mrs. Gurdon.....Flint
Gutow, Mrs. J. J.....Flint
Gundry, Mrs. George.....Grand Blanc
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Harper, Mrs. Homer.....Flint
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Hooper, Mrs. Kendall.....Flint
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Knapp, Mrs. Don (widow).....Flint
Knapp, Mrs. Wm.....Flint
Kretchmar, Mrs. Arthur.....Flint
Kurtz, Mrs. John.....Flint
Limbach, Mrs. David.....Fenton
Livesay, Mrs. Jackson.....Flint
Macduff, Mrs. Bruce.....Flint
MacGregor, Mrs. Delbert.....Flint
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Marshall, Mrs. Wm. (widow).....Flint
McLeod, Mrs. Kenneth.....Flint
Miller, Mrs. Loren.....Flint
Miner, Mrs. F. B. (widow).....Flint
Miltich, Mrs. Anthony.....Flint
Moore, Mrs. Kenneth.....Flint
Morrish, Mrs. Ray.....Flint
Morrison, Mrs. Wm.....Grand Blanc
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Mosier, Mrs. Edward.....Flint
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Rulney, Mrs. Max.....Flint
Rundles, Mrs. Walter.....Flint
Sandy, Mrs. Kenneth.....Flint
Scavarda, Mrs. Charles.....Flint
Schiff, Mrs. Benton.....Flint
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Smith, Mrs. Eugene.....Flint
Smith, Mrs. M. J.....Flint
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Sparks, Mrs. Harvey.....Flint
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Stevenson, Mrs. Wm.....Flint
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Tuuri, Mrs. Arthur.....Flint
Vary, Mrs. Edwin.....Flint
Wark, Mrs. D. R.....Flint
Wentworth, Mrs. John.....Flint
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Willoughby, Mrs. L. L.....Flint
Wills, Mrs. T. W.....Flint
Winchester, Mrs. Walter.....Flint
Woughter, Mrs. Harold.....Flint
Wright, Mrs. Donald.....Flint
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Barstow, Mrs. Wm.....St. Louis
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Davies, Mrs. Lionel.....Mt. Pleasant
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McArthur, Mrs. Stewart.....Rosebush
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Rottschafer, Mrs. John.....Alma
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Roache, Mrs. A. M.....Laurium
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Stern, Mrs. I. D.....Houghton
Wickliffe, Mrs. T. P.....Calumet
Winkler, Mrs. H. J.....L'Anse

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Harrison, Mrs. W. H.....Lansing
Harrod, Mrs. C.....Grand Ledge
Hart, Mrs. L. G.....Lansing
Haze, Mrs. H. A.....Lansing
Heald, Mrs. G. H.....Lansing
Heckert, Mrs. F. B.....Lansing
Heckert, Mrs. J. K.....East Lansing
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Loree, Mrs. M. C.....Lansing
Loughead, Mrs. C.....East Lansing
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Marriner, Mrs. E. F.....Holt
Martin, Mrs. W.....Lansing
Meade, Mrs. W. E.....East Lansing
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McGillicuddy, Mrs. R. J.....East Lansing
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Spagnuelo, Mrs. A. J.....Lansing
Spencer, Mrs. C. T.....East Lansing
Stanley, Mrs. A. L.....East Lansing
Steiner, Mrs. A. A.....Grand Ledge
Steiner, Mrs. S. D.....East Lansing
Stiles, Mrs. F.....East Lansing
Strauss, Mrs. P. C.....Lansing
Stringer, Mrs. C. J.....Lansing
Swartz, Mrs. F. C.....East Lansing
Tamblyn, Mrs. F. W.....East Lansing
Toothaker, Mrs. K. W.....Lansing
Towne, Mrs. L. C.....Lansing
Trescott, Mrs. R. F.....Lansing
Trimby, Mrs. R. H.....Lansing
Troost, Mrs. F. L.....Holt
VanderZalm, Mrs. T. P.....Lansing
Wadley, Mrs. R.....East Lansing
Walker, Mrs. Leo.....Lansing
Warford, Mrs. J. T.....Lansing
Webb, Mrs. R. O.....Okemos
Weinburg, Mrs. H. B.....East Lansing
Wellman, Mrs. J.....Lansing
Whitlock, Mrs. S. C.....Diamondale
Wilensky, Mrs. T.....East Lansing
Wiley, Mrs. H. W.....Lansing
Willson, Mrs. H. S.....Lansing
Wilson, Mrs. H. A.....Lansing
Wight, Mrs. W. G.....Lansing
Worthington, Mrs. R.....Lansing

Jackson County

Adams, Mrs. E. W.....Jackson
Ahronheim, Mrs. J. H.....Jackson
Alter, Mrs. R. H.....Jackson
Anderson, Mrs. W. B.....Jackson
Appel, Mrs. S.....Jackson
Baker, Mrs. George.....Parma
Bindshedler, Mrs. B. S.....Jackson
Brashares, Mrs. Z. A.....Brooklyn
Bullen, Mrs. G. R.....Jackson
Clarke, Mrs. Corwin.....Jackson
Cooley, Mrs. C. Warren.....Jackson
Cooley, Mrs. R. M.....Jackson
Corley, Mrs. Cecil.....Jackson
Corley, Mrs. E. H.....Jackson
Cox, Mrs. Ferdinand.....Jackson
Culver, Mrs. Guy D.....Stockbridge
DeMay, Mrs. J. D.....Jackson
DeMay, Mrs. C. E.....Jackson

Deming, Mrs. R. C.....Jackson
Dengler, Mrs. C. R.....Jackson
Douglas, Mrs. E. W.....Jackson
Filip, Mrs. H. K.....Jackson
Finton, Mrs. R. E.....Jackson
Finton, Mrs. W. L.....Jackson
Finch, Mrs. R. L.....Jackson
Foust, Mrs. W. L.....Grass Lake
Growt, Mrs. B. H.....Addison
Hackett, Mrs. T. E.....Jackson
Hackett, Mrs. T. L.....Jackson
Hanft, Mrs. C. F.....Springport
Hanna, Mrs. Roger.....Jackson
Hardie, Mrs. G. C.....Jackson
Harris, Mrs. L. J.....Jackson
Hicks, Mrs. G. C.....Jackson
Holst, Mrs. John.....Jackson
Holstein, Mrs. A. P.....Manchester
Joerin, Mrs. W. A.....Jackson
Keefer, Mrs. A. H.....Concord
Kraft, Mrs. L. C.....Leslie
Kudner, Mrs. D. F.....Jackson
Lake, Mrs. Ed.....Jackson
Landron, Mrs. Dan L.....Michigan Center
Leahy, Mrs. E. O.....Jackson
Leonard, Mrs. C. A.....Jackson
Lenz, Mrs. C. R.....Jackson
Lewis, Mrs. E. F.....Jackson
Linden, Mrs. V. E.....Jackson
Ludwick, Mrs. J. E.....Jackson
McGarvey, Mrs. W. E.....Jackson
McLaughlin, Mrs. M. J.....Jackson
McLauthlin, Mrs. H. B.....Jackson
Meads, Mrs. J. B.....Jackson
Miller, Mrs. J. L.....Jackson
Miller, Mrs. S. L.....Jackson
Munro, Mrs. C. D.....Jackson
Munro, Mrs. N. D.....Jackson
Murphy, Mrs. B. M.....Jackson
Newton, Mrs. R. E.....Jackson
Otis, Mrs. G. L.....Jackson
Parker, Mrs. E. E.....Leslie
Payne, Mrs. A. K.....Jackson
Porter, Mrs. H. W.....Jackson
Pray, Mrs. H. F.....Jackson
Pray, Mrs. G. R.....Jackson
Ries, Mrs. G. G.....Jackson
Riley, Mrs. P. A.....Jackson
Sargent, Mrs. L. E.....Jackson
Sautter, Mrs. W. A.....Horton
Schmidt, Mrs. T. E.....Jackson
Scott, Mrs. J. A.....Jackson
Shaeffer, Mrs. A. M.....Jackson
Shaeffer, Mrs. Dale.....Jackson
Sill, Mrs. H. W.....Jackson
Sirhal, Mrs. A. M.....Jackson
Smith, Mrs. D. W.....Jackson
Southwick, Mrs. W. A.....Springport
Stewart, Mrs. L. L.....Jackson
Stewart, Mrs. Lewis L.....Jackson
Stolbert, Mrs. Carl A.....Jackson
Stone, Mrs. Ethon L.....Jackson
Susskind, Mrs. M. V.....Jackson
Tate, Mrs. C. E.....Jackson
Taylor, Mrs. R. V.....Jackson
Thalner, Mrs. L. F.....Jackson
Thayer, Mrs. E. A.....Jackson
Thompson, Mrs. R. B.....Jackson
Torwick, Mrs. E. T.....Jackson
Townsend, Mrs. J. W.....Vandercook Lake
VanSchoick, Mrs. F.....Jackson
VanSchoick, Mrs. John.....Hanover
VanWagnen, Mrs. F. I.....Jackson
Vivirski, Mrs. E. E.....Jackson
Wallace, Mrs. W. S.....Jackson
Wholihan, Mrs. J. W.....Jackson
Wickham, Mrs. W. A.....Jackson
Winter, Mrs. G. E.....Jackson

Honorary Members

Stewart, Mrs. M. N.....Jackson
Smith, Mrs. J. C.....Jackson
Peterson, Mrs. E. L.....Jackson
Lathrop, Mrs. W. W.....Jackson
Lake, Mrs. W. H.....Jackson
Hurley, Mrs. H.....Jackson
Brown, Mrs. H. A.....Jackson
Myers, Mrs. J. H.....Jackson
Crowley, Mrs. E. D.....Jackson
Wilson, Mrs. E. G.....Jackson
Schurer, Mrs. P. A.....Manchester
Schepler, Mrs. C. W.....Brooklyn

Kalamazoo County

Aach, Mrs. Hugo.....Kalamazoo
Alexander, Mrs. C. A.....Kalamazoo
Anderson, Mrs. Glenn.....Kalamazoo
Andrews, Mrs. Sherman.....Kalamazoo
Appel, Mrs. Wm.....Kalamazoo
Armstrong, Mrs. Robt.....Kalamazoo
Barak, Mrs. Herbert.....Kalamazoo
Barry, Mrs. Manley.....Kalamazoo
Bennett, Mrs. C. L.....Kalamazoo
Bennett, Mrs. Keith.....Kalamazoo
Betz, Mrs. Eldean.....Kalamazoo
Birch, Mrs. Wm.....Kalamazoo
Borgman, Mrs. Wallace.....Kalamazoo
Boys, Mrs. C. E.....Kalamazoo
Brennerman, Mrs. James.....Galesburg
Brown, Mrs. I. W.....Kalamazoo
Burbidge, Mrs. Earl.....Parchment
Chrest, Mrs. C. P.....Kalamazoo
Cobb, Mrs. H. R.....Kalamazoo
Conrad, Mrs. Maynard.....Kalamazoo
Cook, Mrs. R. G.....Kalamazoo
Cooper, Mrs. Paul.....Kalamazoo
Crane, Mrs. Bart.....Kalamazoo
Crawford, Mrs. Kenneth.....Kalamazoo
Creager, Mrs. R. A.....Kalamazoo
Cretsinger, Mrs. Francis.....Kalamazoo
DeGroat, Mrs. Albert.....Kalamazoo
Delbert, Mrs. Stewart.....Kalamazoo
DePree, Mrs. H. E.....Kalamazoo
Dew, Mrs. Robert.....Kalamazoo
Dowd, Mrs. Bernard.....Kalamazoo
Doyle, Mrs. Fred.....Kalamazoo
Estill, Mrs. Don.....Kalamazoo
Fast, Mrs. Ralph.....Kalamazoo
Fath, Mrs. August.....Kalamazoo
Finton, Mrs. Max.....Kalamazoo
Fopeano, Mrs. John.....Kalamazoo
Gerstner, Mrs. Louis.....Kalamazoo
Green, Mrs. Wm.....Kalamazoo
Gregg, Mrs. Sherman.....Kalamazoo
Grekin, Mrs. Robert.....Kalamazoo
Hammer, Mrs. John.....Kalamazoo
Hayner, Mrs. Russell.....Kalamazoo
Herbert, Mrs. Walter.....Richland
Hildreth, Mrs. Roscoe.....Kalamazoo
Hodgman, Mrs. A. B.....Kalamazoo
Hoebeke, Mrs. W.....Kalamazoo
Howard, Mrs. Grant.....Kalamazoo
Hubbell, Mrs. Reader.....Kalamazoo
Irwin, Mrs. Wm.....Kalamazoo
Jackson, Mrs. Howard.....Kalamazoo
Jennings, Mrs. W. O.....Kalamazoo
Klerk, Mrs. Wm.....Kalamazoo
Lavender, Mrs. Howard.....Kalamazoo
Light, Mrs. R. U.....Kalamazoo
Light, Mrs. S. R.....Kalamazoo
Littig, Mrs. John.....Kalamazoo
Locklin, Mrs. W.....Kalamazoo
MacGregor, Mrs. John.....Parchment
Machin, Mrs. Harold.....Kalamazoo
Malone, Mrs. James.....Kalamazoo
Margolis, Mrs. Fred.....Kalamazoo
Marshall, Mrs. Don.....Kalamazoo
Marshall, Mrs. Wm.....Kalamazoo
Martens, Mrs. Irwin.....Kalamazoo
Morter, Mrs. R. A.....Kalamazoo
Nell, Mrs. Edward.....Kalamazoo
Nibbelink, Mrs. Benj.....Kalamazoo
Patmos, Mrs. Martin.....Kalamazoo
Pearson, Mrs. O. E.....Kalamazoo
Peelen, Mrs. Wm.....Kalamazoo
Prothro, Mrs. W. B.....Kalamazoo
Rigterink, Mrs. Gerald.....Kalamazoo
Rockwell, Mrs. Donald.....Kalamazoo
Ryan, Mrs. F. P.....Kalamazoo
Scholten, Mrs. Roger.....Kalamazoo
Schrier, Mrs. C. M.....Kalamazoo
Scott, Mrs. Wm.....Kalamazoo
Shook, Mrs. Ralph.....Kalamazoo
Siemsen, Mrs. W.....Kalamazoo
Sisk, Mrs. Wilfred.....Kalamazoo
Smith, Mrs. T. C.....Kalamazoo
Sofen, Mrs. M. B.....Kalamazoo
Southworth, Mrs. Maynard.....Schoolcraft
Stryker, Mrs. Homer.....Kalamazoo
Upjohn, Mrs. Gifford.....Kalamazoo
Upjohn, Mrs. L. N.....Kalamazoo
VanderVelde, Mrs. Kenneth.....Kalamazoo
Verhage, Mrs. M. D.....Kalamazoo
Volderauer, Mrs. John.....Kalamazoo
Warnke, Mrs. R. D.....Kalamazoo
Williamson, Mrs. Edwin.....Kalamazoo
Youngs, Mrs. C. A.....Kalamazoo

Associate Members

Bond, Mrs. Glenn.....Kalamazoo
Cortland, Mrs. Geo.....Kalamazoo
Hailman, Mrs. H. F.....Kalamazoo
Heyl, Mrs. F. W.....Kalamazoo
Schreiber, Mrs. Richard.....Kalamazoo

Emeritus Members

Barnebee, Mrs. James.....Kalamazoo
Burns, Mrs. J. T.....Kalamazoo
Collins, Mrs. W. E.....Kalamazoo
Crum, Mrs. Leo.....Richland
DenBlyker, Mrs. Walter.....Kalamazoo
DeWitt, Mrs. Leslie.....Kalamazoo
Fulkerson, Mrs. C. B.....Kalamazoo
Grant, Mrs. F. E.....Kalamazoo
Hobbs, Mrs. E. J.....Galesburg
Hoyt, Mrs. Wilbur.....Paw Paw
Nook, Mrs. E. J.....Kalamazoo
Osborne, Mrs. C. E.....Vicksburg
Pratt, Mrs. F. A.....Kalamazoo
Shackelton, Mrs. W. E.....Kalamazoo
Shepard, Mrs. B. A.....Kalamazoo
Snyder, Mrs. Roscoe.....Kalamazoo
VanUrk, Mrs. Thomas.....Florida
Wilbur, Mrs. E. P.....Kalamazoo
Youngs, Mrs. A. S.....Kalamazoo
Jackson, Mrs. John B.....Kalamazoo

Kent County

Aitken, Mrs. George T.....Grand Rapids
Albers, Mrs. G. Donald.....Grand Rapids
Andre, Mrs. Harvey M.....Grand Rapids
Avery, Mrs. Noyes L., Jr.....Grand Rapids
Baert, Mrs. George H.....Grand Rapids
Baker, Mrs. A. J.....Grand Rapids
Ballard, Mrs. M. S.....Grand Rapids
Balyeat, Mrs. Gordon W.....Grand Rapids
Batts, Mrs. Martin.....Grand Rapids
Beaton, Mrs. James H.....Grand Rapids
Beeman, Mrs. Carl B.....Grand Rapids
Beets, Mrs. W. Clarence.....Grand Rapids
Bell, Mrs. C. M.....Grand Rapids
Benjamin, Mrs. Howard G...Grand Rapids
Benson, Mrs. Roland R.....Grand Rapids
Blackburn, Mrs. Henry M...Grand Rapids
Bloxsom, Mrs. P. W.....Grand Rapids
Boelkins, Mrs. Richard C.....Grand Rapids
Boersma, Mrs. Donald.....Grand Rapids
Boet, Mrs. John T.....Grand Rapids
Bosch, Mrs. Leon C.....Grand Rapids
Brace, Mrs. Fred C.....Grand Rapids
Brink, Mrs. J. Russell.....Grand Rapids
Brook, Mrs. J. D.....Grandville
Buist, Mrs. Samuel J.....Grand Rapids
Bull, Mrs. Frank.....Sparta
Burroughs, Mrs. Frank, Jr.....Grandville
Butler, Mrs. William J.....Grand Rapids
Campbell, Mrs. Alexander....Grand Rapids
Carpenter, Mrs. Luther C.....Grand Rapids
Cayce, Mrs. William.....Grand Rapids
Chandler, Mrs. Donald.....Grand Rapids
Colvin, Mrs. W. G.....Grand Rapids
Corbus, Mrs. Burton R.....Grand Rapids
Crane, Mrs. Harold.....Grand Rapids
Cuncannon, Mrs. Edw. M...Grand Rapids
Currier, Mrs. Fred P.....Grand Rapids
Damstra, Mrs. Harold J.....Grand Rapids
Davis, Mrs. David B.....Grand Rapids
Dean, Mrs. Alfred.....Grand Rapids
DeBoer, Mrs. Clarence J....Grand Rapids
DeBoer, Mrs. Guy W.....Grand Rapids
DeMaagd, Mrs. Gerald.....Rockford
DeMol, Mrs. Richard.....Grand Rapids
Denham, Mrs. R. H.....Grand Rapids
DePree, Mrs. Joe.....Grand Rapids
DeVel, Mrs. Leon.....Grand Rapids
DeVries, Mrs. Daniel.....Grand Rapids
Dewey, Mrs. Kent A.....Grand Rapids
Diskey, Mrs. Donald.....Grand Rapids
Dixon, Mrs. Willis L.....Grand Rapids
Doctor, Mrs. Luebert.....Grand Rapids
Droste, Mrs. James.....Grand Rapids
Ducey, Mrs. E. F.....Grand Rapids
Eaton, Mrs. Robert M.....Grand Rapids
Eggleston, Mrs. H. R.....Grand Rapids
Fahlund, Mrs. Geo. T. R...Grand Rapids
Failing, Mrs. John F.....Grand Rapids
Farber, Mrs. Charles E.....Grand Rapids
Faust, Mrs. L. W.....Grand Rapids
Fellows, Mrs. Kenneth.....Grand Rapids
Ferguson, Mrs. James.....Grand Rapids
Ferguson, Mrs. Lynn A.....Grand Rapids
Ferguson, Mrs. Ward S.....Grand Rapids
Ferrand, Mrs. L. G.....Rockford
Fitts, Mrs. Ralph L.....Grand Rapids

Flynn, Mrs. J. Donald.....Grand Rapids
Foshee, Mrs. J. C.....Grand Rapids
Frantz, Mrs. Charles H.....Grand Rapids
Fuller, Mrs. E. Hemingway..Grand Rapids
Fuller, Mrs. William J.....Grand Rapids
Gamm, Mrs. Kenneth E.....Grand Rapids
Gibbs, Mrs. Floyd F.....Grand Rapids
Gilbert, Mrs. R. H.....Grand Rapids
Gillett, Mrs. O. H.....Grand Rapids
Grant, Mrs. Lee O.....Grand Rapids
Grass, Mrs. Edward J.....Grand Rapids
Gray, Mrs. Fred B.....Grand Rapids
Griffith, Mrs. Lucian S.....Grand Rapids
Haeck, Mrs. William.....Grand Rapids
Hagerman, Mrs. David B.....Grand Rapids
Hake, Mrs. William F.....Grand Rapids
Heetderks, Mrs. Dewey R...Grand Rapids
Henry, Mrs. James.....Grand Rapids
Hill, Mrs. A. Morgan.....Ada
Hodgen, Mrs. John T.....Grand Rapids
Hoffs, Mrs. Albertus.....Grand Rapids
Holcomb, Mrs. J. Winslow..Grand Rapids
Hollander, Mrs. Stephen.....Grand Rapids
Hoogerhyde, Mrs. Jack.....Grand Rapids
Hufford, Mrs. A. Ray.....Grand Rapids
Humphrey, Mrs. James C.....Grand Rapids
Hyland, Mrs. William A.....Grand Rapids
Ireland, Mrs. H. D.....Grand Rapids
Jack, Mrs. William.....Grand Rapids
Jameson, Mrs. Fred.....Grand Rapids
Jaracz, Mrs. Walter J.....Grand Rapids
Jarvis, Mrs. Charles.....Grand Rapids
Jellema, Mrs. John F.....Holland
Jones, Mrs. Horace C.....Grand Rapids
Johnston, Mrs. William L.....Grand Rapids
Kelly, Mrs. Edward F.....Grand Rapids
Klaus, Mrs. C. D.....Grand Rapids
Kniskern, Mrs. Paul W.....Grand Rapids
Kooistra, Mrs. Henry P.....Grand Rapids
Kreulen, Mrs. Henry J.....Grand Rapids
Lentini, Mrs. Joseph.....Grand Rapids
Lieffers, Mrs. Harry.....Grand Rapids
Lillie, Mrs. Walter.....Grand Rapids
List, Mrs. Carl.....Grand Rapids
MacIntyre, Mrs. Dugald S...Grand Rapids
Marsh, Mrs. J. P.....Grand Rapids
Martinus, Mrs. Martin.....Grand Rapids
Maurits, Mrs. Reuben.....Grand Rapids
McCandliss, Mrs. Robt. J...Grand Rapids
McCormick, Mrs. J. K.....Grand Rapids
McDougal, Mrs. William J...Grand Rapids
McKenna, Mrs. Joseph L...Grand Rapids
McKinlay, Mrs. Leland.....Ada

Meade, Mrs. Richard.....Grand Rapids
Meeuwsen, Mrs. Bernard.....Grand Rapids
Miller, Mrs. J. D.....Grand Rapids
Miller, Mrs. J. J.....Marne
Mitchell, Mrs. W. B.....Grand Rapids
Moleski, Mrs. Joseph.....Grand Rapids
Moleski, Mrs. Leo.....Grand Rapids
Moll, Mrs. A. M.....Grand Rapids
Montgomery, Mrs. John.....Grand Rapids
Mouw, Mrs. Dirk.....Grand Rapids
Mulder, Mrs. G. Arthur.....Grand Rapids
Mulder, Mrs. J. D.....Grand Rapids
Murphy, Mrs. Miles.....Grand Rapids
Nanzig, Mrs. Reinard.....Grand Rapids
Nickel, Mrs. Kenneth.....Grand Rapids
Northouse, Mrs. Peter B.....Grand Rapids
Notier, Mrs. Victor A.....Grand Rapids
Oliver, Mrs. W. W.....Rockford
Olson, Mrs. John.....Grand Rapids
Paalman, Mrs. Russell G.....Grand Rapids
Patterson, Mrs. P. W.....Grand Rapids
Payne, Mrs. C. Allen.....Grand Rapids
Pearson, Mrs. Glenn A.....Grand Rapids
Pedden, Mrs. John.....Grand Rapids
Plekker, Mrs. J. D.....Grand Rapids
Posthuma, Mrs. Albert.....Grand Rapids
Pott, Mrs. A. L.....Grand Rapids
Pyle, Mrs. Henry J.....Grand Rapids
Ragsdale, Mrs. L. V.....Grand Rapids
Ralph, Mrs. L. Paul.....Grand Rapids
Rasmussen, Mrs. Rich. A...Grand Rapids
Reames, Mrs. Harold.....Grand Rapids
Reed, Mrs. Torrance.....Grand Rapids
Reus, Mrs. William.....Grand Rapids
Rigterink, Mrs. John W.....Grand Rapids
Riley, Mrs. George L.....Grand Rapids
Robberts, Mrs. John H.....Grandville
Robinson, Mrs. H. C.....Grand Rapids
Rodgers, Mrs. William.....Grand Rapids
Rosenzweig, Mrs. Leonard....Grand Rapids
Roth, Mrs. Emil.....Grand Rapids
Ryan, Mrs. John.....Grand Rapids
Schaubel, Mrs. Howard J...Grand Rapids
Schermerhorn, Mrs. L. J.....Grand Rapids
Schnoor, Mrs. Elmer W.....Grand Rapids
Schuitema, Mrs. Don. M...Grand Rapids
Scott, Mrs. William B.....Grand Rapids
Sevensma, Mrs. E. S.....Grand Rapids
Sevey, Mrs. Leon E.....Grand Rapids
Shellman, Mrs. M. W.....Grand Rapids
Shepard, Mrs. B. H.....Lowell
Sibers, Mrs. B. H.....Grand Rapids
Sidell, Mrs. Chester.....Grand Rapids
Sidell, Mrs. Richard H.....Grand Rapids

Slemons, Mrs. C. C.....Grand Rapids
Sluyter, Mrs. J. S.....Grand Rapids
Smith, Mrs. A. B.....Grand Rapids
Smith, Mrs. R. Earle.....Grand Rapids
Smith, Mrs. Robert B.....Grand Rapids
Snapp, Mrs. Carl F.....Grand Rapids
Snyder, Mrs. C. H.....Grand Rapids
Southwick, Mrs. G. H.....Grand Rapids
Steffensen, Mrs. W. H.....Grand Rapids
Stonehouse, Mrs. G. G.....Grand Rapids
Stover, Mrs. Virgil E.....Grand Rapids
Stuart, Mrs. G. J.....Grand Rapids
Swenson, Mrs. Harold G.....Grand Rapids
Ten Have, Mrs. John.....Grand Rapids
Tesseine, Mrs. A. J.....Grand Rapids
Thompson, Mrs. Edw. C...Grand Rapids
Thompson, Mrs. Frank D.....Grand Rapids
Thomson, Mrs. John W.....Frank Rapids
Tidey, Mrs. Marcus B.....Grand Rapids
Tiffany, Mrs. Joseph.....Grand Rapids
Torgerson, Mrs. Wm. R.....Grand Rapids
Troug, Mrs. C. Peter.....Ada
Uthoff, Mrs. Carl.....Grand Rapids
VanBelois, Mrs. H. J.....Grand Rapids
Van Bree, Mrs. Raym. S.....Grand Rapids
Van DenBerg, Mrs. Allison..Grand Rapids
VandenBerg, Mrs. Henry....Grand Rapids
VanderPloeg, Mrs. William..Grand Rapids
VanDuine, Mrs. Henry J.....Grand Rapids
VanNoord, Mrs. G. A.....Grand Rapids
VanPernis, Mrs. Paul A.....Grand Rapids
VanSolkema, Mrs. Andrew....Grand Rapids
VanWoerkom, Mrs. Daniel..Grand Rapids
VanZwalenberg, Mrs. B. R. Grand Rapids
Veldman, Mrs. H. J.....Grand Rapids
Venema, Mrs. Jay R.....Grand Rapids
Vining, Mrs. Keats K., Jr...Grand Rapids
Vis, Mrs. William R.....Grand Rapids
Warmenhoven, Mrs. S.....Grand Rapids
Wells, Mrs. Merrill.....Grand Rapids
Weller, Mrs. Keith E.....Grand Rapids
Wenger, Mrs. John N.....Coopersville
Wilkes, Mrs. John B.....Grand Rapids
Willits, Mrs. Paul.....Grand Rapids
Winter, Mrs. G. E.....Grand Rapids
Wright, Mrs. John Mill.....Grand Rapids
Wurz, Mrs. John F.....Grand Rapids
Yared, Mrs. J. A.....Grand Rapids
Yegge, Mrs. John.....Kent City

Honorary Members

Irwin, Mrs. Thomas C.....Grand Rapids
Wenger, Mrs. A. Verne.....Grand Rapids

Lapeer County

Biggs, Mrs. Robert.....North Branch
Bishop, Mrs. Clare.....Almont
Chapin, Mrs. Clarence.....Columbiaville
Dorland, Mrs. Clarke.....Lapeer
Doty, Mrs. James.....Lapeer
Lass, Mrs. Edward.....Lapeer
McBride, Mrs. John.....Lapeer
Mertz, Mrs. Henry G.....Lapeer
O'Brien, Mrs. Daniel.....Lapeer

Rehn, Mrs. Adolph.....Lapeer
Smith, Mrs. Glenn.....Imlay City
Thomas, Mrs. J. Orville.....North Branch
Zemmer, Mrs. Harry.....Lapeer
Zolliker, Mrs. Carl.....Imlay City

Associate Members

Best, Mrs. Ada.....Lapeer

Braidwood, Mrs. Saddie.....Lapeer
Hunter, Miss Frances.....Lapeer
Hunter, Miss Mary Ellen.....Lapeer
Kiehle, Mrs. Anna.....Lapeer
Thompson, Mrs. May.....Lapeer
Snowman, Mrs. Lynna.....Lapeer

Honorary Member

Kay, Mrs. Wm.....Lapeer

Macomb County

Banting, Mrs. Oswald F.....Richmond
Barker, Mrs. John G.....St. Clair Shores
Bower, Mrs. Allen B.....Armada
Brady, Mrs. Milo J.....Detroit
Bryce, Mrs. James W.....Centerline
Buckley, Mrs. Daniel J.....Mt. Clemens
Crawford, Mrs. Alphonse M.....Rochester
Croman, Mrs. Joseph M.....Mt. Clemens
Dudzinski, Mrs. Edm. J. New Baltimore
Engels, Mrs. John.....Richmond
Hartmann, Mrs. W. B.....Mt. Clemens
Heine, Mrs. Austin W.....Mt. Clemens

Kane, Mrs. William J.....Mt. Clemens
Lynch, Mrs. Russell E.....Grosse Pointe
Moore, Mrs. George.....Mt. Clemens
Mulligan, Mrs. Philip T.....Mt. Clemens
Persson, Mrs. G. A.....Mt. Clemens
Reichman, Mrs. Joseph J.....Mt. Clemens
Reitzel, Mrs. Rufus H.....Mt. Clemens
Revere, Mrs. Joseph O.....Mt. Clemens
Rivard, Mrs. Charles F.....St. Clair Shores
Salot, Mrs. Russell F.....Mt. Clemens
Siegfried, Mrs. Edward G.....Mt. Clemens
Smith, Mrs. Milton C.....Mt. Clemens

Stryker, Mrs. Oscar D.....St. Clair Shores
Sturm, Mrs. Frederick A.....Grosse Pointe
Thompson, Mrs. Alfred A.....Mt. Clemens
Ullrich, Mrs. Russell W.....Mt. Clemens
Wellard, Mrs. Henry C.....New Baltimore
Whitley, Mrs. Alec.....St. Clair Shores
Wiley, Mrs. Duncan Bruce.....Utica
Wolfson, Mrs. Victor H.....Mt. Clemens
Wyte, Mrs. Wm. C.....Mt. Clemens

Honorary Member

Peltier, Mrs. Stanley J.....Mt. Clemens

Manistee County

Dart, Mrs. Ralph.....Manistee
Grant, Mrs. Charles L.....Manistee
Hansen, Mrs. Ernest C.....Manistee
Konopa, Mrs. John F.....Manistee
McLarty, Mrs Madge.....Manistee

MacMullen, Mrs. Bernadine.....Manistee
Miller, Mrs. Ernest B.....Manistee
Norconk, Mrs. Ward.....Bear Lake
Oakes, Mrs. Ellery A.....Manistee
Ogilvie, Mrs. Gordon D.....Manistee

Osborn, Mrs. Samuel.....Manistee
Ramsdell, Mrs. Homer A.....Manistee
Ramsdell, Mrs. Louise C.....Manistee
Rowe, Mrs. Robert E.....Manistee
Switzer, Mrs. L. W.....Manistee

Mason County

Bacon, Mrs. H. G.....Scottville
Boldyreff, Mrs. Ephraim B.....Custer
Boone, Mrs. A. Floyd.....Ludington
Hoffman, Mrs. Howard B.....Ludington

Martin, Mrs. William S.....Ludington
Ostrander, Mrs. Robert A.....Ludington
Paukstis, Mrs. Charles A.....Ludington

Scott, Mrs. Robert R.....Ludington
Slaybaugh, Mrs. J. C.....Ludington
Spencer, Mrs. C. M.....Scottville
Switzer, Mrs. George A.....Ludington

Marquette-Alger Counties

Acocks, Mrs. James R.....Marquette
Barron, Mrs. B. C.....Munising
Bennett, Mrs. Arthur K.....Marquette
Bennett, Mrs. Matthew C.....Marquette
Bolitho, Mrs. T. Boyd.....Marquette
Bottom, Mrs. Charles N.....Marquette
Burke, Mrs. Richard A.....Palmer
Casler, Mrs. Wilbur L.....Marquette
Cooperstock, Mrs. Moses.....Marquette
Erickson, Mrs. A. N.....Ishpeming
Green, Mrs. Southgate J.....Gwinn
Keskey, Mrs. George.....Marquette
Knudson, Mrs. George.....Negaunee
Lambert, Mrs. Warren C.....Marquette
McCann, Mrs. Neal J.....Marquette
McIntyre, Mrs. Don.....Ishpeming
Narotzky, Mrs. Archie.....Ishpeming
Nicholson, Mrs. John B.....Marquette
Wickstrom, Mrs. George B.....Munising
Youngquist, Mrs. Lloyd L.....Marquette

Mecosta-Osceola-Lake Counties

Bruggema, Mrs. Jacob.....Evart
Chess, Mrs. Leo F.....Reed City
Campbell, Mrs. J. B.....Big Rapids
Franklin, Mrs. Benjamin.....Remus
Ivkovich, Mrs. Paul.....Reed City
Kelsey, Mrs. Lee F.....Lakeview
Kowaleski, Mrs. Edw.....Remus
Kilmer, Mrs. David.....Reed City
Kilmer, Mrs. Paul B.....Reed City
Marston, Mrs. L. L.....Lakeview
Miller, Mrs. Chas. S.....Big Rapids
Mitchell, Mrs. Harold C.....Big Rapids
Nelson, Mrs. Lorenzo.....Baldwin
Treynor, Mrs. Thomas P.....Big Rapids
Van Auken, Mrs. Edw.....Big Rapids
Yeo, Mrs. Gordon H.....Big Rapids
White, Mrs. J. A.....Big Rapids

Menominee County

Brukardt, Mrs. H. R.....Menominee
Dewane, Mrs. J. N.....Menominee
Dewane, Mrs. F. J.....Menominee
Jones, Mrs. W. S., Jr.....Menominee
Jones, Mrs. W. S., Sr.....Menominee
Heidenreich, Mrs. J. R.....Daggett
Higley, Mrs. R. A.....Menominee
Peterson, Mrs. A. R.....Daggett
Sweany, Mrs. S. K.....Powers
Towey, Mrs. J. W.....Powers
Whitmarsh, Mrs. Thos.....Stephenson
Glickman, Mrs. L. C.....Marinette, Wis.
Kerwell, Mrs. K. C.....Stephenson
Kaye, Mrs. J. T.....Menominee
Sethney, Mrs. H. T.....Menominee

Midland County

Ballmer, Mrs. Robert.....Midland
Berneir, Mrs. Joseph.....Sanford
Blackhurst, Mrs. Robert.....Midland
Bowsher, Mrs. Robert.....Midland
Bulmer, Mrs. Dan.....Midland
Buskirk, Mrs. Maurice.....Midland
Carsons, Mrs. Adah.....Midland
Gay, Mrs. Harold.....Midland
Gordon, Mrs. Harold.....Midland
Gronemeyer, Mrs. William.....Midland
High, Mrs. Florence.....Midland
Howe, Mrs. Irwin.....Midland
Ittner, Mrs. Martin.....Midland
Kaasa, Mrs. Laurin.....Midland
Kilian, Mrs. John.....Midland
Lansborough, Mrs. Hester.....Midland
Linsenman, Mrs. Karl.....Midland
MacCallum, Mrs. Charles.....Midland
Maynard, Mrs. William.....Coleman
Meisel, Mrs. Edward.....Midland
Pike, Mrs. Melvin.....Midland
Poznak, Mrs. Leonard.....Midland
Sherk, Mrs. Joseph.....Midland
Sjolander, Mrs. G.....Midland

Monroe County

Barker, Mrs. V. L.....Monroe
Blakey, Mrs. L. C.....Monroe
Bond, Mrs. W. W.....Monroe
Cigany, Mrs. Zoltan B.....Carleton
Dusseau, Mrs. S.V.....Erie
Ewing, Mrs. R. T.....Monroe
Flanders, Mrs. J. P.....Monroe
Frary, Mrs. R. A.....Monroe
Freud, Mrs. John W.....Monroe
Gelhaus, Mrs. Wm. J.....Monroe
Hunter, Mrs. M. A.....Monroe
Kelso, Mrs. S. Newton, Jr.....Monroe
Labeau, Mrs. Edward.....Ida
Lammers, Mrs. Gerald.....Ida
Landon, Mrs. H. W.....Monroe
Long, Mrs. Edgar C.....Ida
McDonald, Mrs. T. A.....Ida
Newcomer, Mrs. Sheldon R.....Ida
Reisig, Mrs. Albert H.....Ida
Sanger, Mrs. E. J.....Monroe
Siffer, Mrs. J. J.....Monroe
Tellman, Mrs. H. Clay.....Muskegon
Wagar, Mrs. Spencer.....Ida
Williams, Mrs. Robert J.....Ida

Muskegon County

August, Mrs. Ralph V.....Spring Lake
Beers, Mrs. Charles W.....Muskegon
Benedict, Mrs. Arthur L...Muskegon Hts.
Bolthouse, Mrs. Robert.....Muskegon
Boyd, Mrs. Devere R.....Muskegon
Bradshaw, Mrs. Park S...North Muskegon
Christopherson, Mrs. James.....Muskegon
Clapp, Mrs. Henry.....Muskegon
Clark, Mrs. Harry.....Muskegon
Closz, Mrs. Harold.....Muskegon
Dasler, Mrs. Adolph F.....Muskegon
Derezinski, Mrs. C. F.....Wolf Lake
Dykhuizen, Mrs. Harold.....Muskegon
Ellis, Mrs. Nicholas J.....Muskegon
Emerick, Mrs. Robert W.....Muskegon
Fleischmann, Mrs. Chas. B.....Muskegon
Fleishman, Mrs. Norman.....Muskegon
Gaikema, Mrs. E. W.....North Muskegon
Hagen, Mrs. William.....Muskegon
Hannum, Mrs. Frank W.....Muskegon
Harryman, Mrs. James.....Muskegon
Hartwell, Mrs. S. W.....Muskegon
Heneveld, Mrs. Edward H.....Muskegon
Heneveld, Mrs. John.....Muskegon
Heneveld, Mrs. Robert G.....Muskegon
Holly, Mrs. Leland.....Muskegon
Joistad, Mrs. Arthur.....North Muskegon
Kane, Mrs. Thomas J.....Muskegon
Kerr, Mrs. Howard J.....Muskegon
LaFollette, Mrs. William.....Muskegon
Lange, Mrs. Eugene.....Wolf Lake
Lapham, Mrs. Landon.....Whitehall
Lauretti, Mrs. Emil J.....Muskegon
LeFevre, Mrs. Louis.....North Muskegon
LeFevre, Mrs. William.....Muskegon
McNair, Mrs. John.....Muskegon Heights
Medema, Mrs. Paul.....Muskegon
Meengs, Mrs. Marvin.....Muskegon
Morford, Mrs. Fred.....Muskegon
Mulligan, Mrs. Allen.....Muskegon
Prentice, Mrs. Edward W.....Muskegon
Risk, Mrs. Robert D.....Muskegon
Scholle, Mrs. Norbert.....Muskegon
Sears, Mrs. Richard.....Muskegon
Shebesta, Mrs. Emil.....Muskegon
Smith, Mrs. M. Luther.....Muskegon
Swenson, Mrs. Leland.....Muskegon
Tellman, Mrs. H. Clay.....Muskegon
Thornton, Mrs. E. S.....North Muskegon
Tyler, Mrs. William.....North Muskegon
Vander Laan, Mrs. John.....Muskegon
VanGelder, Mrs. William C.....Muskegon
Wagenaar, Mrs. Edward H.....Muskegon
Walker, Mrs. George.....Muskegon
White, Mrs. Warren G.....Muskegon
Wiersma, Mrs. Silas C.....Muskegon
Wildgen, Mrs. Bernard.....Muskegon
Wilson, Mrs. Pitt.....Muskegon
Gillard, Mrs. James L.....Muskegon
Griffith, Mrs. Robert M.....Muskegon
Loder, Mrs. Louis L.....Muskegon

Newaygo County

Black, Mrs. Benjamin.....Holton
Geerlings, Mrs. Lambert.....Fremont
Geerlings, Mrs. Willis.....Fremont
Harris, Mrs. Dean W.....Fremont
Klein, Mrs. J. Paul.....Fremont
Masters, Mrs. Brooker L.....Fremont
O'Neill, Mrs. John.....Fremont
Tompsett, Mrs. Arthur.....Hesperia

Northern Michigan Counties

Albi, Mrs. R. J.....Boyne City
Allen, Mrs. R. F.....Petoskey
Alm, Mrs. Bernard.....Petoskey
Barrett, Mrs. John.....Petoskey
Conkle, Mrs. G. C.....Boyne City
Conti, Mrs. Joseph.....Petoskey
Conway, Mrs. Wm.....Petoskey
Grate, Mrs. L. E.....Charlevoix
Kirk, Mrs. T. R.....Petoskey
Lilga, Mrs. H. V.....Petoskey
Litzenburger, Mrs. Albert.....Boyne City
McClintock, Mrs. Robert.....Petoskey
Saltonstall, Mrs. G. B.....Charlevoix
Savory, Mrs. John.....East Jordan
Terr, Mrs. Isaac.....Charlevoix

North Central County

Boehm, Mrs. John D.....West Branch
Clippert, Mrs. C. G.....Grayling
Coulter, Mrs. K. D.....Gladwin
Gehman, Mrs. J. R.....Fairview
Hasty, Mrs. Earl.....West Branch
Hayes, Mrs. L. F.....Grayling
Henig, Mrs. B. Elmore.....Grayling
Hoenig, Mrs. Andrew.....Mancelona
Jardine, Mrs. Hugh M.....West Branch

Keyport, Mrs. C. R.....Grayling
Libke, Mrs. R. S.....Gaylord
Martzowka, Mrs. M.....Roscommon
McKillop, Mrs. Gordon.....Gaylord
Peckham, Mrs. R. C.....Gaylord
Schaiberger, Mrs. George.....West Branch
Stealey, Mrs. Stanley.....Grayling
Timreck, Mrs. H. A.....Gladwin
Crandall, Mrs. C. H.....West Branch
Beeby, Mrs. R. J.....West Branch

Oakland County

Abbott, Mrs. Vernon C.....Pontiac
Arnkoff, Mrs. Harry.....Pontiac
Aschenbrenner, Mrs. Zac.....Farmington
Baker, Mrs. Frederick A.....Pontiac
Baker, Mrs. Robert.....Pontiac
Bannow, Mrs. R. J.....Pontiac
Barker, Mrs. Alvin S.....Bloomfield Hills
Bauer, Mrs. Ernest.....Hazel Park
Beebe, Mrs. Willard E.....Pontiac
Belknap, Mrs. Warren.....Royal Oak
Blakeney, Mrs. James R.....Pontiac
Brooks, Mrs. A. L.....Pontiac
Brown, Mrs. Arnold.....Pontiac
Bradley, Mrs. E. L.....Pontiac
Bullard, Mrs. R. W.....Drayton Plains
Burgess, Mrs. Charles M.....Pleasant Ridge
Burke, Mrs. Chauncey G.....Birmingham
Campbell, Mrs. M. D.....Pleasant Ridge
Cobb, Mrs. Leon.....Pontiac
Collins, Mrs. E. F.....Pontiac
Cudney, Mrs. Ethan B.....Pontiac
Dahlgren, Mrs. Carl W.....Pontiac
Deutsch, Mrs. Wm. L.....Huntington Wds.
Dobski, Mrs. Edwin J.....Pontiac
Dunlap, Mrs. Gregg L.....Pontiac
Durocher, Mrs. N. E.....Pontiac
Ekeland, Mrs. C. T.....Pontiac
Feicks, Mrs. Wm.....Birmingham
Fink, Mrs. L. Jerome.....Pontiac
Garnsbauer, Mrs. Ferdinand.....Pontiac
Gately, Mrs. C. R.....Pontiac
Gates, Mrs. Edward M.....Birmingham
Gehringer, Mrs. Norman F.....Pontiac
Gerls, Mrs. Frank B.....Pontiac
Gill, Mrs. Mathew J.....Pontiac
Hackett, Mrs. Daniel J.....Pontiac
Harsh, Mrs. Robert C.....Pontiac
Hendren, Mrs. Owen S.....Birmingham
Hershey, Mrs. Lynn.....Birmingham
Howlett, Mrs. E. V.....Pontiac
Hoyt, Mrs. D. F.....Pontiac
Hubert, Mrs. John R.....Bloomfield Hills
Kemp, Mrs. Felix J.....Pontiac
Koehler, Mrs. William.....Royal Oak
Lahti, Mrs. Paul T.....Royal Oak
Lewis, Mrs. Sol N.....Ferndale
Markle, Mrs. J. Q.....Royal Oak
Markly, Mrs. J. M.....Pontiac
McConkie, Mrs. J. P.....Birmingham
McNeill, Mrs. H. H.....Pontiac
Mohas, Mrs. Constantine.....Pontiac
Mercer, Mrs. Frank A.....Pontiac
Miller, Mrs. H. L.....Royal Oak
Mitchell, Mrs. B. M.....Pontiac
Morton, Mrs. James.....Birmingham
Monroe, Mrs. John.....Pontiac
Murtha, Mrs. A. W.....Pontiac
Neafie, Mrs. C. A.....Pontiac
Nosanchuk, Mrs. James.....Pontiac
Palmer, Mrs. Hayden.....Pontiac
Payton, Mrs. Charles F.....Royal Oak
Petroff, Mrs. George.....Pontiac
Porritt, Mrs. Ross.....Pontiac
Riker, Mrs. Aaron D.....Pontiac
Russell, Mrs. V. P.....Pleasant Ridge
Ruva, Mrs. Joseph.....Pontiac
Sheffield, Mrs. L. S.....Pontiac
Shadley, Mrs. M. L.....Pontiac
Simpson, Mrs. E. K.....Pontiac
Smith, Mrs. Donald S.....Pontiac
Spoehr, Mrs. Eugene.....Pleasant Ridge
Spencer, Mrs. L. H.....Ferndale
Spohn, Mrs. Earle.....Royal Oak
Stahl, Mrs. Harold.....Oxford
Stageman, Mrs. John.....Clarkston
Stanley, Mrs. W. F.....Pleasant Ridge
Steinberg, Mrs. N. W...Huntington Woods
Sutton, Mrs. Palmer.....Royal Oak
Tolle, Mrs. Charles S.....Birmingham
Tuck, Mrs. Raymond.....Pontiac
Uloth, Mrs. Milton.....Ortonville
Van Haltern, Mrs. H. L.....Pontiac
Wigent, Mrs. Ralph.....Pontiac
Williams, Mrs. John P.....Pontiac
Cefai, Mrs. A. F.....Pontiac
Endress, Mrs. Zac. F.....Pontiac
Olsen, Mrs. Richard.....Pontiac
Foust, Mrs. Earl W.....Birmingham
Whitehouse, Mrs. John.....Pontiac
Haddock, Mrs. Douglas.....Pontiac
Cobb, Mrs. Thomas.....Pontiac
Darling, Mrs. C. G.....Bloomfield Hills
Lowery, Mrs. A. S.....Pontiac
Boucher, Mrs. Roman.....Royal Oak
Crissman, Mrs. H. G.....Ferndale
Prather, Mrs. F.....Pontiac
Riggs, Mrs. Harry.....Pontiac
Schuneman, Mrs. Howard.....Royal Oak

Ottawa County

Stobbelaar, Mrs. B.....Grand Haven
Beernink, Mrs. D.....Grand Haven
Bloemendal, Mrs. W. B.....Grand Haven
DeYoung, Mrs. F.....Grand Haven
Kemme, Mrs. G. J.....Holland
Nykamp, Mrs. R.....Holland
Tappen, Mrs. W.....Holland
Ten Have, Mrs. R.....Grand Haven
Wells, Mrs. K.....Grand Haven
Groat, Mrs. F.....Grand Haven
Rypkema, Mrs. W.....Grand Haven
Vander Berg, Mrs. E.....Holland

Saginaw County

Ackerman, Mrs. Gerald L.....Saginaw
Anderson, Mrs. William K.....Saginaw
Bishop, Mrs. H. Mortimer.....Saginaw
Brender, Mrs. Frederick P.....Frankenmuth
Brock, Mrs. William H.....Saginaw
Bruton, Mrs. Martin F.....Saginaw
Bucklin, Mrs. Robert.....Saginaw
Button, Mrs. Aaron C.....Bridgeport
Bullington, Mrs. Bert M.....Saginaw
Busch, Mrs. Frank J.....Saginaw
Butler, Mrs. Milton G.....Saginaw
Cady, Mrs. Frederick J.....Saginaw
Cambridge, Mrs. Vernal W.....Saginaw
Cameron, Mrs. Allan K.....Saginaw
Campbell, Mrs. Lloyd A.....Saginaw
Chisena, Mrs. Peter R.....Bridgeport
Claytor, Mrs. Archer A.....Saginaw
Cortopassi, Mrs. Andre J.....Saginaw
Cortopassi, Mrs. Vital E.....Saginaw
Cory, Mrs. Charles W.....Saginaw
Curts, Mrs. James H.....Saginaw
Durman, Mrs. Donald C.....Saginaw
Ely, Mrs. Cecil W.....Saginaw
Gage, Mrs. David P.....Saginaw
Galsterer, Mrs. Edwin C.....Saginaw
Gardner, Mrs. Joseph H.....Saginaw
Gomon, Mrs. Louis D.....Saginaw
Hand, Mrs. Eugene A.....Saginaw
Harvie, Mrs. Lloyd C.....Saginaw
Heavenrich, Mrs. Robert M.....Saginaw
Helmkamp, Mrs. Herbert O.....Saginaw
Hester, Mrs. Eustace G.....Saginaw
Hill, Mrs. Victor L.....Saginaw
Howell, Mrs. Donald M.....Saginaw
Jaenichen, Mrs. Robert.....Saginaw
James, Mrs. John W.....Saginaw
Jiroch, Mrs. Ralph S.....Saginaw
Johnstone, Mrs. K. T.....Saginaw
Keller, Mrs. S. S.....Saginaw
Kemp, Mrs. John.....Saginaw
Kempton, Mrs. Rockwell M.....Saginaw
Kerr, Mrs. William B.....Saginaw
Keyes, Mrs. James T.....Birch Run
Kickham, Mrs. Edward F.....Saginaw
Kolesar, Mrs. Robert C.....Saginaw
Kowals, Mrs. Francis V.....Saginaw
Kretchmer, Mrs. Thomas V.....Saginaw
La Porte, Mrs. Lawrence A.....Saginaw
Leitch, Mrs. Arthur E.....Saginaw
Ling, Mrs. Kenneth.....Hemlock
Lohr, Mrs. Oliver W.....Saginaw
Luger, Mrs. Frederick E.....Saginaw
Lurie, Mrs. Robert.....Saginaw
Lyle, Mrs. Richard C.....Bridgeport
Mac Kinnon, Mrs. Edwin D.....Saginaw
Mac Meekin, Mrs. James W.....Saginaw
Manning, Mrs. John E.....Saginaw
Markey, Mrs. Francis L.....Saginaw
Markey, Mrs. Joseph P.....Saginaw
Martzowka, Mrs. William P.....Saginaw
Mathews, Mrs. Harry C.....Saginaw
Maurer, Mrs. John A.....Saginaw
Maurer, Mrs. J. G., Sr.....Saginaw
Mayne, Mrs. Harold E.....Saginaw
McKinney, Mrs. Alexander R.....Saginaw
McLandress, Mrs. Joshua A.....Saginaw
Meyer, Mrs. Henry J.....Bridgeport
Mikan, Mrs. V. Robert.....Saginaw
Miller, Mrs. Glenn F.....Saginaw
Moon, Mrs. A. Raymond.....Saginaw
Morgrette, Mrs. Leonard J.....Saginaw
Morris, Mrs. K. M.....Saginaw
Mudd, Mrs. Richard D.....Saginaw
Murphy, Mrs. Albert P.....Saginaw
Murray, Mrs. Charles R.....Saginaw
Murray, Mrs. Morris J.....Saginaw
Nelson, Mrs. Oscar A.....Saginaw
Northway, Mrs. Robert O.....Saginaw
Novy, Mrs. Frank O.....Saginaw
Olson, Mrs. Carl Porter.....Saginaw
Ostrander, Mrs. Frank W.....Freeland
Phillips, Mrs. Homer A.....Saginaw
Pietz, Mrs. Frederick.....Saginaw
Potvin, Mrs. Clifford D.....Saginaw
Powers, Mrs. Robert F.....Saginaw
Richards, Mrs. Ned W.....Saginaw
Richter, Mrs. E. P.....Saginaw
Richter, Mrs. Harry J.....Saginaw
Rushin, Mrs. David B.....Saginaw
Ryan, Mrs. Michael D.....Saginaw
Ryan, Mrs. Richard S.....Saginaw
Sample, Mrs. John T.....Saginaw
Sargent, Mrs. Donald V.....Saginaw
Sharp, Mrs. Martin C.....Saginaw
Sheldon, Mrs. Suel A.....Saginaw
Siler, Mrs. Delbert E.....Saginaw
Skowronski, Mrs. Casimer A.....Saginaw
Stahly, Mrs. Edward H.....Saginaw
Stander, Mrs. Aaron C.....Saginaw
Stewart, Mrs. George W.....Saginaw
Sulfridge, Mrs. Hugh L., Jr.....Saginaw
Thompson, Mrs. Arthur B.....Saginaw
Tiedke, Mrs. Gunther E.....Saginaw
Topp, Mrs. Elwin W.....Saginaw
Toshach, Mrs. Clarence E.....Saginaw
Volk, Mrs. Vladimir K.....Saginaw
Watson, Mrs. Roy S.....Saginaw
Westlund, Mrs. Norman.....Saginaw
Wright, Mrs. Edwin M.....Saginaw
Yntema, Mrs. Stuart.....Saginaw
Grigg, Mrs. Arthur P.....Saginaw
Schultz, Mrs. F. R.....Chesaning

Associate Members

Hubinger, Mrs. H. L.....Saginaw
Weeks, Mrs. E. G.....Saginaw

Sanilac County

Bennett, Mrs. Wm.....Brown City
Blanchard, Mrs. Ernest.....Deckerville
Gift, Mrs. Weldon A.....Marlette
Hart, Mrs. Robert.....Croswell
McCrea, Mrs. John.....Marlette
McGunegle, Mrs. K. T.....Sandusky
Muir, Mrs. Neil.....Croswell
Tweedie, Mrs. Evans.....Sandusky
Tweedie, Mrs. Martin.....Sandusky
Seager, Mrs. M. Cole.....Brown City
Webster, Mrs. J. C.....Marlette

Shiawassee County

Arnold, Mrs. A. L. ... Owosso
Bennett, Mrs. George ... Elsie
Brown, Mrs. Richard ... Owosso
Brown, Mrs. R. W. ... Grand Rapids
Brown, Mrs. R. J. ... Owosso
Buzzard, Mrs. W. D. ... Chesaning
Dillon, Mrs. T. J. ... Perry
Elliott, Mrs. Bruce ... Owosso
Harkness, Mrs. C. A. ... Owosso
Hoshal, Mrs. Vern ... Durand
Hume, Mrs. Nina B. ... Owosso
Janci, Mrs. Julius ... Owosso
Merz, Mrs. Walter ... Owosso
Mitchell, Mrs. A. B. ... Owosso
Pochert, Mrs. R. C. ... Owosso
Purcell, Mrs. S. L. ... Owosso
Richards, Mrs. Chester ... Durand
Sackrider, Mrs. Nora ... Owosso
Sahlmark, Mrs. Joseph F. ... Owosso
Slagh, Mrs. E. N. ... Elsie
Smith, Mrs. Louise ... Ovid
Weinkauf, Mrs. Wm. ... Corunna
Weston, Mrs. Claude ... Owosso

St. Clair County

Banting, Mrs. Kenneth ... Port Huron
Battley, Mrs. J. S. C. ... Port Huron
Beck, Mrs. Frank ... Port Huron
Beers, Mrs. Jos. ... St Clair
Benjamin, Mrs. Clayton ... Port Huron
Borden, Mrs. Charles ... Port Huron
Bottomley, Mrs. Thomas ... Port Huron
Boughner, Mrs. Walter ... Algonac
Bowden, Mrs. Wm. ... Marine City
Cleland, Mrs. Wm. ... Port Huron
Clifford, Mrs. Robert ... St. Clair
Clyne, Mrs. B. C. ... Yale
Fitzgerald, Mrs. E. W. ... Port Huron
Gholz, Mrs. Anthony ... Port Huron
Gilmore, Mrs. John R. ... Port Huron
Hazeldine, Mrs. Herbert ... Port Huron
Holcomb, Mrs. R. J. ... Marine City
Hoyt, Mrs. Charles ... Port Huron
Kahn, Mrs. Oscar ... Capac
Koch, Mrs. Donald ... Port Huron
LeGalley, Mrs. Kenneth ... Port Huron
Ludwig, Mrs. Fred ... Port Huron
McCoy, Mrs. Leslie ... Port Huron
Martin, Mrs. Clyde ... Port Huron
Meredith, Mrs. Evert ... Port Huron
Novak, Mrs. Walter ... Port Huron
Patterson, Mrs. Dorsey ... Port Huron
Pollock, Mrs. Donald ... Port Huron
Ryerson, Mrs. Wm. W. ... Port Huron
Sanderson, Mrs. Jos. ... Port Huron
Schaefer, Mrs. Waldo ... Port Huron
Sites, Mrs. Edgar ... Port Huron
Thomas, Mrs. Charles ... Port Huron
Townley, Mrs. Charles ... Port Huron
Treadgold, Mrs. Douglas ... Port Huron
Ulmer, Mrs. Arthur ... Port Huron
Wass, Mrs. H. C. ... St. Clair
Wetzel, Mrs. John ... St. Clair
Wheeler, Mrs. Margaret ... Port Huron
Wilson, Mrs. Norman ... Marine City
Waters, Mrs. George ... Port Huron
Callery, Mrs. A. L. ... Detroit
Bovee, Mrs. H. E. ... Port Huron

Tuscola County

Adams, Mrs. DeWitt ... Caro
Ballard, Mrs. J. H. ... Cass City
Cook, Mrs. Raymond ... Akron
Donahue, Mrs. T. H. ... Cass City
Gugino, Mrs. Frank ... Reese
Morris, Mrs. F. L. ... Cass City
Nigg, Mrs. Herbert ... Caro
Pelczar, Mrs. Walter E. ... Unionville
Savage, Mrs. Lloyd ... Caro
Starmann, Mrs. Bernard ... Cass City
Swanson, Mrs. E. C. ... Vassar
Tazelaar, Mrs. Myron ... Cass City

St. Joseph County

Berg, Mrs. Lawrence ... Sturgis
Blood, Mrs. John ... Three Rivers
Braham, Mrs. Wilbur ... Sturgis
Brunson, Mrs. Allen ... Sturgis
Cook, Mrs. Ernest ... Three Rivers
Emory, Miss Blanche ... Sturgis
Fiegel, Mrs. S. Albert ... Sturgis
Fortner, Mrs. Roscoe ... Three Rivers
Kane, Mrs. D. M. ... Sturgis
Lepard, Mrs. Olin ... Sturgis
O'Dell, Mrs. Charles ... Three Rivers
Olney, Mrs. Harold ... Leonidas
Parrish, Mrs. M. F. ... Sturgis
Pennington, Mrs. Harry ... White Pigeon
Penzotti, Mrs. Stanley ... Three River
Porter, Mrs. Clark ... Three Rivers
Reed, Mrs. Fred ... Three Rivers
Robinson, Mrs. Fred ... Sturgis
Shaw, Mrs. George ... Three Rivers
Sheldon, Mrs. John ... Sturgis
Slote, Mrs. Leal K. ... Constantine
Springer, Mrs. Russel ... Centreville
Tesar, Mrs. Frank ... Centreville
Zimont, Mrs. Ray ... Constantine

Washtenaw County

Alexander, Mrs. John ... Ann Arbor
Allen, Mrs. Arthur ... Ann Arbor
Atchison, Mrs. R. M. ... Northville
Badgley, Mrs. Carl ... Ann Arbor
Barr, Mrs. Albert ... Ann Arbor
Bassow, Mrs. Paul ... Ann Arbor
Bauer, Mrs. Gerhard ... Ann Arbor
Beebe, Mrs. Hugh ... Ann Arbor
Belote, Mrs. George ... Ann Arbor
Belser, Mrs. Walter ... Ann Arbor
Benz, Mrs. Alvin ... Ann Arbor
Campbell, Mrs. Darrell ... Ann Arbor
Cawley, Mrs. Edward ... Ann Arbor
Coller, Mrs. Frederick ... Ann Arbor
Crook, Mrs. Clarence ... Ann Arbor
Cummings, Mrs. Howard ... Ann Arbor
Curtis, Mrs. Arthur C. ... Ann Arbor
De Jong, Mrs. Russell ... Ann Arbor
De Tar, Mrs. John S. ... Milan
Dingman, Mrs. Reed ... Ann Arbor
Dolfin, Mrs. W. E. ... Ann Arbor
Engelke, Mrs. Otto ... Ann Arbor
Falls, Mrs. Harold ... Ann Arbor
Fink, Mrs. George ... Ann Arbor
Fralick, Mrs. Bruce ... Ann Arbor
Francis, Mrs. Thomas ... Ann Arbor
French, Mrs. A. J. ... Ann Arbor
Frey, Mrs. Carl ... Ann Arbor
Frost, Mrs. Lyle ... Ypsilanti
Furstenberg, Mrs. Albert C. ... Ann Arbor
Ganzhorn, Mrs. Edwin ... Ann Arbor
Gates, Mrs. John ... Ann Arbor
Gates, Mrs. Niel ... Ann Arbor
Gotz, Mrs. Alexander ... Ann Arbor
Grawn, Mrs. Frank ... Ypsilanti
Greenway, Mrs. Guerdon ... Ypsilanti
Haas, Mrs. Reynold ... Ann Arbor
Hagerman, Mrs. George ... Ann Arbor
Hannum, Mrs. M. R. ... Milan
Harris, Mrs. Bradley ... Ypsilanti
Harris, Mrs. Scott ... Ypsilanti
Henderson, Mrs. John ... Ann Arbor
Himler, Mrs. Leonard ... Ann Arbor
Hodges, Mrs. F. G. ... Ann Arbor
House, Mrs. Frederick ... Ann Arbor
Howard, Mrs. Stacy ... Ann Arbor
Ideson, Mrs. Robert ... Ann Arbor
Kambley, Mrs. Arnold ... Ann Arbor
Keene, Mrs. Clifford ... Ann Arbor
Kemper, Mrs. John ... Ann Arbor
Kretschmar, Mrs. Norman ... Ann Arbor
La Fever, Mrs. Sidney ... Ann Arbor
Lashmet, Mrs. Floyd ... Ann Arbor
Martin, Mrs. D. W. ... Ypsilanti
Maxwell, Mrs. James ... Ann Arbor
McEachern, Mrs. Thos. ... Ann Arbor
Milford, Mrs. Albert ... Ypsilanti
Muehlig, Mrs. George ... Ann Arbor
Myers, Mrs. Dean ... Ann Arbor
Newton, Mrs. Charles ... Ann Arbor
Obenauf, Mrs. Walter ... Ypsilanti
O'Conner, Mrs. Sylvester ... Ann Arbor
Patterson, Mrs. Ralph ... Ann Arbor
Peet, Mrs. Max M. ... Ann Arbor
Pollard, Mrs. Marvin ... Ann Arbor
Quilligan, Mrs. J. J. ... Ann Arbor
Ratliff, Mrs. R. K. ... Ann Arbor
Riecker, Mrs. Herman ... Ann Arbor
Riggs, Mrs. Harold ... Ann Arbor
Robinson, Mrs. Wm. D. ... Ann Arbor
Ross, Mrs. C. Howard ... Ann Arbor
Sayre, Mrs. George ... Ypsilanti
Schumacher, Mrs. W. E. ... Ann Arbor
Scoville, Mrs. Henry ... Ypsilanti
Seevers, Mrs. M. H. ... Ann Arbor
Seime, Mrs. Reuben ... Ypsilanti
Sheldon, Mrs. John M. ... Ann Arbor
Sink, Mrs. Emory ... Ann Arbor
Spears, Mrs. Clarence ... Ypsilanti
Sturgis, Mrs. Cyrus C. ... Ann Arbor
Teed, Mrs. R. Wallace ... Ann Arbor
Towsley, Mrs. Harry A. ... Ann Arbor
Waggoner, Mrs. Raymond W. ... Ann Arbor
Wessinger, Mrs. John ... Ann Arbor
Westover, Mrs. Charles ... Plymouth
Wetterstroem, Mrs. R. ... Northville
Williams, Mrs. Howard ... Ann Arbor
Williamson, Mrs. Frederick ... Ypsilanti
Wilson, Mrs. James ... Ann Arbor
Woods, Mrs. J. J. ... Ypsilanti
Zerbi, Mrs. Victor ... Willow Village

Wayne County

Adams, Mrs. Jas. R. ... Dearborn
Akroyd, Mrs. C. A. ... Detroit
Albrecht, Mrs. Herman F. ... Detroit
Aldrich, Mrs. Gordon E. ... Detroit
Alles, Mrs. Russell W. ... Detroit
Amos, Mrs. T. Grover ... Detroit
Anderson, Mrs. Bruce ... Pontiac
Andries, Mrs. George H. ... Detroit
Arehart, Mrs. Burke W. ... Grosse Pointe
Ashe, Mrs. Stilson R. ... Dearborn
Ashley, Mrs. L. Byron ... Detroit
Athay, Mrs. Roland M. ... Eloise
August, Mrs. Harry E. ... Huntington
Axelson, Mrs. A. U. ... Detroit
Babcock, Mrs. Lloyd K. ... Detroit
Babcock, Mrs. W. W. ... Detroit
Baer, Mrs. George ... Grosse Pointe
Bagley, Mrs. Harry E. ... Dearborn
Bailey, Mrs. C. C. ... Detroit
Bailey, Mrs. William A. ... Dearborn
Balcerski, Mrs. Matthew ... Grosse Pointe
Barone, Mrs. Chas. J. ... Highland Park
Barrett, Mrs. Wyman D. ... Grosse Pointe
Bartemeier, Mrs. Leo ... Grosse Pointe
Bates, Mrs. W. M. ... Detroit
Baumgarten, Mrs. E. C. ... Grosse Pointe
Beach, Mrs. Watson ... Grosse Pointe
Beam, Mrs. A. Duane ... Grosse Pointe
Beaton, Mrs. Colon ... Pleasant Ridge
Bell, Mrs. J. Kenner ... Highland Park
Bentley, Mrs. Neil ... Detroit
Berlien, Mrs. Ivan C. ... Detroit
Best, Mrs. Edward ... Grosse Pointe
Bethea, Mrs. Hardee ... Detroit
Bicknell, Mrs. E. A. ... Detroit
Bird, Mrs. H. Waldo ... Grosse Pointe
Blain, Mrs. Alexander ... Grosse Pointe
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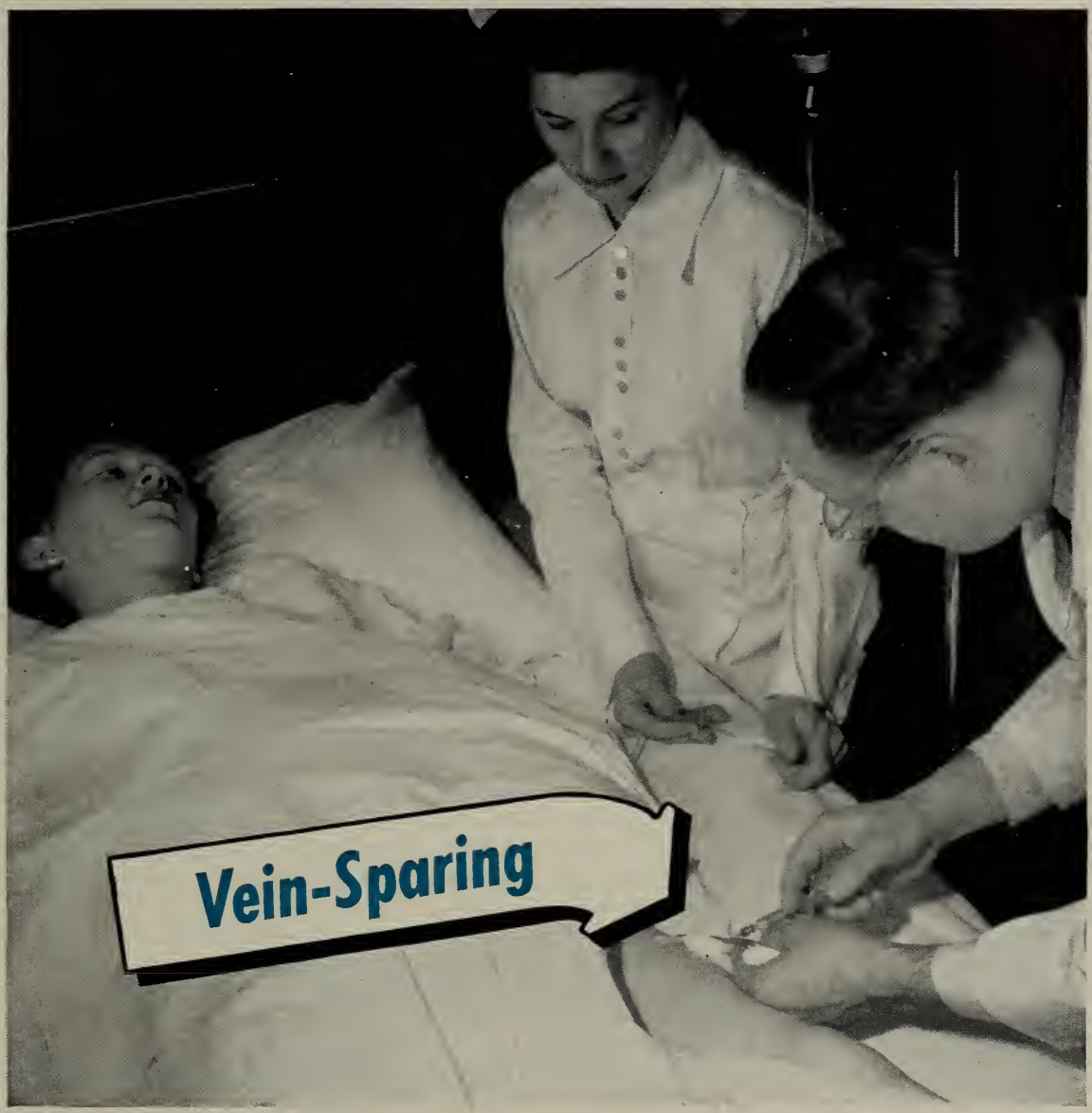
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RESEARCH IN THE SERVICE OF MEDICINE **SEARLE**

Say you saw it in the Journal of the Michigan State Medical Society

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

Thousands of children in thirteen Michigan communities will be provided dental caries prevention treatment at a minimum cost, while fifteen University of Michigan junior dental and dental hygiene students get paid experience in their vocation, this summer.

The summer dental program, utilizing the services of students to apply fluorides to children's teeth, was arranged through the co-operation of the University, the local dentists and health officials, the Michigan State Dental Society and the Michigan Department of Health.

The students were given special training in public health dentistry techniques, the use of portable fluoridization equipment, the preparation of necessary records, the basic public relations at the Michigan Department of Health. They were also given field training in local health departments fluoridization programs.

While conducting the summer program, the students use the Michigan Department of Health's fifteen portable fluoridization units which are used in schools during the rest of the year; they work in school buildings which are not occupied during the summer; and they are supervised by the local dentists of the community who volunteer their time. A minimal charge is made for the fluoridization treatments. This money pays for expendable supplies and the students' cost-of-living stipends. In addition to the cost-of-living stipend and the professional experience, the students benefit by developing skills in conducting community programs, in handling children, and in parent-child-dentist relationships.

Areas which have summer topical sodium fluoride application programs are Shiawassee, Montcalm, Washtenaw, Huron and Ingham counties, Traverse City, Grand Haven, Holland, Flint, Buchanan, Edwardsburg, Battle Creek and Ludington.

Through the co-operation of the Venereal Disease Control Committee of the Michigan State Medical Society and the Michigan Department of Health, a copy of "Diagnosis of Syphilis by the General Practitioner" by Joseph Earl Moore, M.D., of Johns Hopkins University, a reprint from the *Journal of Venereal Disease Information,* is being sent to each practicing physician of the state.

For use in "Little White House" follow-up conferences, PTA meetings, college classes, child health study clubs, et cetera, this Department has acquired an album of twelve-minute excerpts of fifteen speeches made at the Conference, a statement of three Youth Delegates on the theme of the Conference, and a twenty-seven-minute documentary program presenting a running account of events at the Conference meetings. The set includes seven 16-inch double-faced records, 33⅓ rpm. They can be played on standard playback equipment, but the ordinary home record player is not large enough to accommodate them. The excerpts of speeches are from Conference addresses made by President Harry S. Truman, Benjamin Spock, M.D., Katharine Lenroot, Leonard Mayo, General Carlos Romulo, Allison Davis, Margaret Mead, Margaret Price, and others. Requests for the use of the album should be sent as early as possible to Section of Maternal and Child Health.

A revision of the pamphlet "As Your Little Child Eats. . . . So Will He Grow" has been prepared by the Section of Nutrition. The leaflet has the approval of the Child Welfare Committee of the Michigan State Medical Society. It will be available in quantities from the local health departments in the near future.

In an effort to arrange for the provision of better public health services for 100,000 Michigan residents in six counties in the sparsely populated Upper Peninsula, the Michigan Department of Health participated in a meeting of members of the six counties' boards of supervisors and other interested people at Michigan College of Mining and Technology, Houghton, May 9 and 10.

District health departments in the area, hampered by inadequate finances and resultant personnel shortages, have been hard pressed to provide adequate basic health services. Tuberculosis, infant mortality, geriatrics and industrial health are of special concern in the counties involved.

The possibility of redistricting the local health jurisdictions of the section to provide broader taxable areas to support the local health services was proposed and is under consideration.

Snake antivenom is stocked in each laboratory of the Michigan Department of Health—in Lansing, Grand Rapids, Houghton and Powers. Physicians of the state may get the product at any time, day or night, by calling the laboratory nearest them. State police will assist in transportation in case of emergency.

This department is advising Michigan parents to send their children to the public beach or pool for their swimming. Of the 159 Michigan people who drowned last year, only seven were swimming at a place set aside or designed for swimming. Lake areas not set aside for swimming, rivers, streams, quarries and gravel pits took the lives of 122 persons.

Many of the newer effective insecticides used by growers and gardeners in Michigan contain parathion, a chemical which can be fatal to humans and to animals alike if improperly used.

This Department has warned Michigan people to read the labels on all insecticides most carefully and to fol-

(Continued on Page 810)

Vitamin Tablets for Your Patients . . .

AVAILABLE IN BULK CONTAINERS OR IN CONVENIENT DISPENSING PACKAGES:

A, B, D & G (Sugar Coated, Black)

Supplied in bottles of 100 and 1000 tablets.

Each tablet contains:

Vitamin A.....5000 U.S.P. units
Vitamin B_1 (Thiamine, 1 mg.).. 333 U.S.P. units
Vitamin D..... 500 U.S.P. units
Vitamin G (Riboflavin, 2 mg.) 800 Sherman units

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Supplied in bottles of 1000 and 5000 tablets.

Each tablet contains:

Thiamine HCl (333 U.S.P. units)..... 1 mg.
Riboflavin (500 Sherman units).....1.25 mg.
Pyridoxine Hydrochloride .....0.5 mg.
Calcium Pantothenate .....3.75 mg.
Niacin ..... 15 mg.

Calcium, Iron & Viosterol (Sugar Coated, Yellow)

Supplied in bottles of 1000 and 5000 tablets, or in bottles of 100 with prescription labels.

Each tablet contains:

Dicalcium Phosphate .....4 gr.
Iron Gluconate .....1 gr.
Vitamin D (activated Ergosterol) 333 U.S.P. units

Vitamin C (Ascorbic Acid)

Supplied in bottles of 100 and 1000 tablets.

Each tablet contains:

Ascorbic Acid (5000 U.S.P. units).....250 mg.

Iron & Thiamine (Sugar Coated, Red)

Supplied in bottle of 1000 and 5000 tablets.

Each tablet contains:

Ferrous Sulphate Exsiccated.....5 gr.
Thiamine HCl (333 U.S.P. units).....1 mg.

Livonamine

Supplied in bottles of 1000 and 5000 tablets.

Each tablet represents:

Liver Extract (1-2D).....3 gr.
Ferrous Sulphate Exsiccated.....2 gr.
Thiamine HCl (Vitamin B_1).....1 mg.

X-tra-Hi (High Potency)

Supplied in bottles of 100 and 1000 capsules.

Each capsule represents:

Vitamin A.....25,000 U.S.P. units
Vitamin D (Irradiated Ergosterol) ..... 1,000 U.S.P. units
Vitamin B_1 (Thiamine HCl 10 mg.) ..... 3,330 U.S.P. units
Vitamin B_2 (Riboflavin).....5 mg.
Vitamin C (Ascorbic Acid, 150 mg.) ..... 3,000 U.S.P. units
Niacinamide .....150 mg.

Thiamine Hydrochloride (B_1)

Supplied in 10 mg., 25 mg., and 50 mg. tablets.

Each bottle contains 1000 tablets.

Vitamin A (Natural)

Supplied in bottles of 100 and 1000 capsules.

Each capsule contains:

At least 25,000 units of Natural Vitamin A.

Vitamins A & D (Halibut Liver Oil with Viosterol)

Supplied in bottles of 100 and 1000 capsules.

Each capsule contains:

Vitamin A. .....5000 U.S.P. units
Vitamin D (Irradiated Ergosterol) ..... 850 U.S.P. units

Vitamin D

Supplied in bottles of 100 and 1000 capsules.

Each capsule contains:

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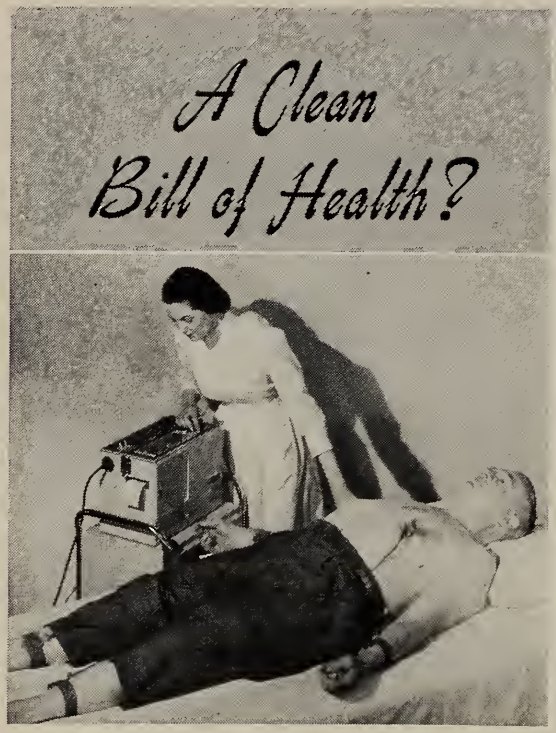
Vitamin A .....5000 U.S.P. units
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Vitamin B_2 (Riboflavin).....3 mg.
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—Winsor, T.: Electrocardiography for the General Practitioner, GP 3:59-69 (Mar.) 1951.

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(Continued from Page 808)

low directions and precautions exactly. It has also warned that if the label lists parathion and no precautions are attached, the insecticide should not be handled or used until the local health department or county agent has been contacted.

More than 2,500 Michigan school children, whose initial screening tests indicated that they had some hearing loss, have been examined by fifty-seven practicing otologists of the state who have co-operated with the Michigan Department of Health in its Hearing Conservation Program.

The Water Resources Commission will conduct a limited program of beach application of copper sulphate for swimmers' itch control this summer. Requests for assistance should be addressed to Lloyd Gouine, Supervisor, Swimmers Itch Control Program, Conservation Department Headquarters, Boyne City.

To answer a steady influx of questions regarding the advisability of giving Michigan children immunization treatment for diphtheria, whooping cough, and tetanus, or booster shots, during the late summer poliomyelitis season, the Michigan Department of Health issued this statement June 12, 1951:

The Michigan Department of Health recommends that the established initial immunization procedure calling for the child's immunization to be underway by six months and completed by his first birthday be continued. Careful studies show that the danger of unprotected children under one year having serious cases of either diphtheria or whooping cough, alone, is much greater than the risk of the infant's contracting paralytic polio.

Some evidence is now accumulating which appears to indicate that there is a greater incidence of paralysis among poliomyelitis victims who have had immunization treatment within a month of the onset of the disease. For this reason, when polio is prevalent in a community, physicians may wish to defer immunization of older children and defer booster doses until after the polio incidence has subsided.

In one study, 97 per cent of monozygous twins, in which both partners had cancer, had lesions at the same site, in contrast to only 50 per cent of the like sexed dizygous twins.

* * *

Of all cancers, retinoblastoma, multiple neuro-fibromatosis, multiple polyposis, and xeroderma pigmentosum are generally agreed to be hereditary.

* * *

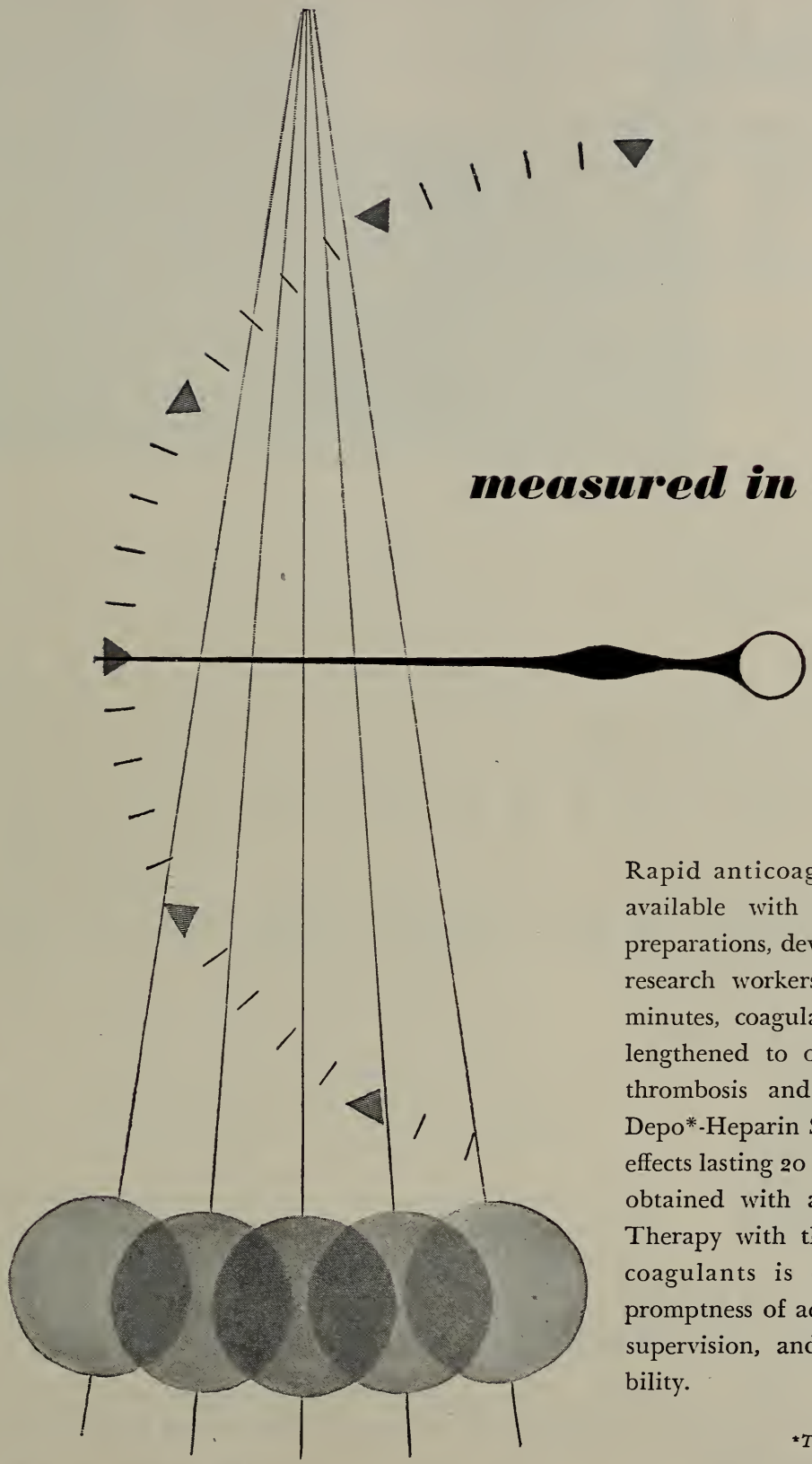
A large proportion of the parents of children with xeroderma pigmentosum are blood relatives.

* * *

The polyp is the most common tumor of the large intestine. As many as 10 per cent of the population are thought to have these growths.

* * *

Jaundice often is a symptom of cancer of the bile ducts, of the head of the pancreas or of the liver.



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In Memoriam

WILLIAM G. WIGHT, M.D.



"Death Takes Veteran Yale Doctor," was the headline in the *Detroit Free Press,* which noted the passing of this great man on May 28, 1951. No epitaphs or eulogies will ever fittingly describe his services to mankind. He was an example of great Americanism. Dr. Wight lived close to the ideals we teach. This man was a living example of the type of public relations we could hope for in the practice of medicine.

Dr. Fred Burmell Wight, in speaking of his father, said: "Dad never turned down a call and has rendered service when he himself was sicker than the patient. Many times he knew he would not be paid or at best he would receive a bushel of apples or potatoes. No job was too big or too small."

Dr. Wight was a general practitioner. He was friend, medical advisor, and Father Confessor to many people. He did many things and did them well. No one knows how many babies he delivered. He leaves no accurate records of just how many acute appendicitis cases and other surgical emergencies he has cared for on the kitchen table. Many of his patients brag about the beautiful reduction he accomplished on a broken leg or arm without the use of x-ray or fluoroscope. We regret that adequate statistics are not available, for we believe that a comparison with present-day figures on morbidity and mortality would be surprisingly close. He was but another example of the great fund of knowledge that is necessary to be a general practitioner. It would seem that with present-day facilities available, even in the more rural areas, that all we need is the same type of integrity and desire to serve.

Few doctors will be privileged to serve a community for sixty-one years. Few have the stamina. Many of us lack the inherent tendencies that place service above anything else. If we could but follow the example of this truly great American, then Socialism and all ideologies foreign to our free way of life would be intolerable.

I join with those of my birthplace in mourning the passing of our friend.

C. E. Umphrey, M.D.

Among physicians, the most important occupational skin cancers are caused by long continued exposure to the roentgen rays during fluoroscopy.

* * *

Over 40 per cent of vesical tumors are found on the floor of the bladder.

* * *

Hematuria is the cardinal symptom in 91 per cent of bladder tumors and is the initial symptom in 70 per cent.



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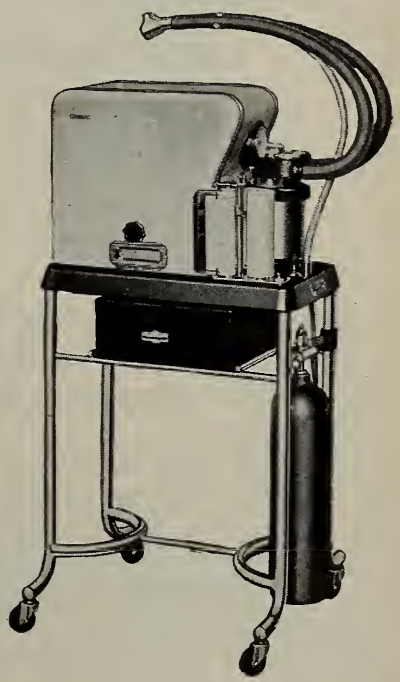
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Communications

June 7, 1951

Wilfrid Haughey, M.D.
Editor, Michigan State Medical Journal
610 Post Bldg.
Battle Creek, Mich.

Dear Dr. Haughey:

This is an open letter which I feel the urge to write commenting upon a few of the features which I have noticed in many of the recent textbook publications.

These ideas have been gathering for many years and are just now coming to the surface. My reference is to books using numerous illustrations and x-ray reproductions with dogmatic, misleading captions. These captions give bacteriological specificity and microscopic definitions of conditions which cannot in any way be seen on the x-ray film or the reproduction. Captions put forth in such a manner lead the uninitiated to think that the final conclusion was made from the x-ray alone. Nothing could be farther from the truth. All qualified men in the field know this, but a book devoted to the teaching of students and men not versed in radiology leads these men to expect an exactness of diagnosis which x-ray alone cannot give. Granted, most books of this type explain the situation fully in the text, but still, few people read the text exhaustively when perusing a new volume.

My plea is for illustrations bearing captions similar to the following: Pneumonia, which after excluding—, was proved bacteriologically to be Friedlander's bacillus.

Very truly yours,
G. T. Patrick, M.D.

William H. Gordon, M.D., Chairman
MSMS Emergency Medical Service Committee
Detroit, Michigan

Dear Dr. Gordon:

As Chairman of the MSMS Emergency Medical Service Committee, you will probably be interested to know that the Sault Ste. Marie practice exercise held on April 16 went off very well and that the Chippewa County Medical Society did an excellent job. Practically every member of the County Medical Society was on duty in the various First Aid and medical installations.

As a physician, I cannot help but realize what a good piece of public relations this was and how reassuring to the people of the community.

Earl S. Rhind, M.D., of Sault Ste. Marie, is Chairman of the Chippewa-Mackinac County Emergency Medical Service Committee and was responsible for the fine organization.

Representatives of the Canadian Medical Society also commented to me about the fine co-operation of the County Medical Society.

W. H. Alexander, M.D., of Iron Mountain, was there to observe as a representative of your Committee and it

(Continued on Page 816)

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Let us help you with one of your problem drinkers. Literature, including rates, will be furnished on request.

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(Continued from Page 814)

occurred to us that the experience gained by Dr. Rhind in organizing this first test exercise might be of value to your commitee if you would care to contact him. He appears to be a good leader and has the personality which inspires other people to co-operate.

With best personal wishes,
E. Freeman Hersey, M.D., Director
Medical and Welfare Services
Michigan Office of Civil Defense
Lansing, Michigan

April 19, 1951

Wilfrid Haughey, M.D., Editor
The Journal of the Michigan
State Medical Society
Battle Creek, Michigan

Dear Doctor Haughey:

You are to be congratulated upon that fine fiftieth anniversary issue of the Michigan Journal. It is excellent in all respects!

Since our department contributed several articles to the issue we would like to secure extra copies of the magazine. Dr. Lull is much interested in the article about the AMA and our staff wishes copies for circulating and clipping. Can you supply us with 25 extra copies and bill us for the charges? If you cannot send this quantity, please send us a smaller supply.

Congratulations, again, on the event of Michigan Medical Society's fiftieth anniversary.

Sincerely yours,
(Signed) Carol Towner
Associate Editor
PR DOCTOR

May 25, 1951

RUPTURED PREGNANCY

(Continued from Page 742)

alert and disclaimed any pain or tenderness. While she was under close surveillance some evidences of shock appeared and developed rapidly, and a cul-de-sac "tap" revealed intraperitoneal blood, so a laparotomy was done forthwith. Rupture of a large left cornual pregnancy was found, and there was extrusion of the unruptured membrane sac containing the normal fetus and the attached semi-separated placenta into the peritoneal cavity, the total mass of the sac and the uterus extending well above the umbilicus. A subtotal hysterectomy was performed, and the patient had an uneventful post-operative course.

References

1. DeNicola, R. Robert, and Petersen, Mare R.: Pregnancy in a rudimentary horn of the uterus. Am. J. Surg., 73: (April) 1947.
2. Dill, L. V., and Martin, Shirley: Assymmetry of the uterus in early pregnancy. Am. J. Obst. & Gynec., 60:1324 (Dec.) 1950.

Say you saw it in the Journal of the Michigan State Medical Society



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. . . . . NEWS MEDICAL

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

The Arthritis and Rheumatism Foundation is offering research fellowships in the basic sciences related to arthritis. Fellowships will be granted at both the predoctoral and postdoctoral levels. The predoctoral fellowships will range between $1,500 and $3,000 per annum, and the postdoctoral from $3,000 to $6,000. The deadline for these applications is November 15, 1951. Application forms may be obtained by writing the Medical Director, Arthritis and Rheumatism Foundation, 535 Fifth Avenue, New York 17, N. Y.

* * *

President C. E. Umphrey, M.D., Detroit, addressed a joint meeting of the Macomb County Medical Society and the Macomb County Bar Association in Mt. Clemens on May 22. This meeting, sponsored by the Bar Association, was attended by eighty-one doctors and lawyers. Dr. Umphrey's subject was "Medical Economics in a Changing World."

* * *

Appointment of W. Randolph Lovelace, II, M.D. as chairman of the Armed Forces Medical Policy Council, effective July 1, 1951, was announced on May 8 by the Secretary of Defense, George C. Marshall.

* * *

John B. Kantner has joined the Public Relations staff of the Michigan State Medical Society. He will serve as assistant to Hugh W. Brenneman, Public Relations Counsel. Mr. Kantner was formerly a reporter on the *Monitor-Leader* in Mount Clemens as well as a free-lance radio and television writer for WWJ in Detroit.

Born in Ionia, Michigan, in 1919, he later moved to East Detroit with his parents. Kantner was graduated from East Detroit High School in 1937 and Wayne University in 1948.

He is married and has two children. As a first lieutenant in World War II, he was a bombardier in a B-24 based in Italy.

In 1948, he was one of nine newsmen in the United States to cover the first trans-Atlantic crossing of U. S. Air Force jet planes.

* * *

The Commission on Financing Higher Education, which is backed by the Association of American Universities and financed by grants from the Rockefeller Foundation and the Carnegie Corporation, recently published a statement on the financial crisis faced by America's medical schools.

From the standpoint of the medical profession, the most important part of the Commission's statement was its expression of disapproval of Senate Bill 337, which would authorize federal grants to accredited medical schools on a per student basis. The Commission's report said:

"Such a change needs much more thought than it has yet had.

"Until it has been clearly demonstrated that other

MSMS FELLOWSHIPS IN RHEUMATIC FEVER CONTROL

The first Michigan Doctors of Medicine to receive fellowships, established by the Rheumatic Fever Control Committee of the Michigan State Medical Society for postgraduate study on the treatment of rheumatic fever, are Robert E. Fisher, M.D., of Bay City; Roy D. Tupper, M.D., of Detroit; John C. Montgomery, M.D., of Grand Rapids; and Park S. Bradshaw, M.D., of Muskegon.

These physicians went to the St. Francis Sanatorium on Long Island, N. Y., June 4 for the course which continued through June 15.

The four fellowships were established on the recommendation of Leon DeVel, M.D., medical co-ordinator of the Michigan Rheumatic Fever Control Program, at the May meeting of the Rheumatic Fever Control Committee and subsequently approved by the MSMS Executive Committe of The Council.

Dr. DeVel suggested that four annual special fellowships be used for postgraduate study of Rheumatic Fever and Heart Disease. The applicant must be active in a Rheumatic Fever Control Center for at least a year and signify his intention of continued activity in the program.

The fellowships cover travel, per diem and registration fees. The maximum is set at $500 for each fellowship.

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sources of support cannot finance medical education, we believe no such great and potentially far-reaching innovation in federal financing should be undertaken.

"If other sources of income fail to provide the kind of medical education this country demands, the American public may insist upon federal government support. The medical education of today, the medical service of tomorrow, and the financial future of many important universities depend upon how this country meets the challenge of more medical school income now.

"Either additional money must be found or universities will have to divorce themselves from medical schools to preserve their other functions, the commission said. Such a solution, however, would be 'unsound' since 'the great advances in medical science come primarily from the medical schools of universities.' "

* * *

The Academy of General Practice of Wayne County publishes an interesting bulletin which has a column entitled "What Do YOU Think?" Among some suggested goals that the Academy might promote to the benefit of its members, is listed the following important item:

"Staggering of days off among members in the same locality, so that the community always has medical care available."

* * *

A total of 209,040 physicians in the continental United States— as of December 15, 1950—is an all-time high record, according to the annual medical licensure report of the American Medical Association. This report indicates an increase of 6,002 to the medical profession in the United States and its possessions last year. Against this there were 3,794 deaths, making a net gain of 2,208 in the M.D. population.

The American Medical Association's Clinical Session of 1951—December 4 to 7 inclusive—has been moved to Los Angeles. Due to conflicting meetings, the unavailability of the Coliseum and other considerations, Houston could not be used in 1951.

* * *

The Sixth Annual Postgraduate Course in Diseases of the Chest sponsored by the Council on Postgraduate Medical Education and the Illinois State Chapter of the American College of Chest Physicians, will be presented at the St. Clair Hotel, Chicago, Illinois, September 24 through 28, 1951.

This course will emphasize the recent advancements in the diagnosis and treatment of chest diseases. The course is open to all physicians, but the number of registrants will be limited. Applications will be accepted in the order in which they are received and are to be sent to the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

* * *

Members of the Woman's Auxiliary to the Ingham County Medical Society entertained wives of state government officials and state legislators at a tea, Monday, April 16, in the Michigan State College Union.

Greeting the 130 guests were Mrs. O. D. Stryker and Mrs. R. S. Breakey, President and President-elect, respectively, of the Woman's Auxiliary to the Michigan State Medical Society, Mrs. J. S. Rozan, President of the

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Ingham Auxiliary, and Mrs. R. M. Leitch, and Mrs. Martin Bruton, officers of the State Auxiliary.

A special feature of the tea was a program presented on table arrangements by Mrs. C. D. Price who was introduced by Mrs. T. P. VanderZalm.

* * *

Rant and Rave: "We didn't realize that doctor's prescriptions were so illegible until we heard of the patient who took the prescription given by his physician and used it for two years as a railroad pass, got him into Madison Square Gardens and Yankee Stadium and then his daughter played it on the piano and won a scholarship to a conservatory of music."—*Detroit Medical News,* May 21, 1951.

* * *

Irvin W. Sander, M.D., Detroit, has been named MSMS representative to cover the third national Conference on Physicians and Schools, Hotel Moraine, Highland Park, Illinois, November 6-7-8, 1951. This Conference is under the sponsorship of the American Medical Association.

* * *

More about the 1951 M.P.C.I.: "The Michigan Postgraduate Clinical Institute went over very well this year. All of those with whom I talked were pleased with the program. A good, practical clinical interpretation is what they need."—J. M. Robb, M.D., (Guest Essayist), Detroit.

* * *

Lunette I. Powers, M. D., Muskegon, Michigan's Foremost Family Physician, was chosen by Northwestern University Alumni to receive the award of the year for distinguished service among its thousands of alumni. She returned to Northwestern June 7 to receive the honor during the Illumination Night ceremonies. Her notification stated that Dr. Powers was receiving the merit award from the Alumni Association "in recognition of worthy achievement." Dr. Powers was graduated from Northwestern Medical School in 1897 at the age of twenty-two. After internship at Chicago's Mary Thompson Hospital, Dr. Powers began the practice of medicine in Muskegon in 1900.

Previously, Northwestern University honored Dr. Powers with the Golden Reunion Certificate (1947).

Congratulations, Dr. Powers!

The Exhibit Section of the MSMS Annual Session is as important, interesting and desirable to most doctors of medicine as the papers that are presented in the meeting room.

At the 1951 MSMS Annual Session in Grand Rapids, this Section will feature both Scientific and Technical Exhibits—a total of 140 booths.

Doctor, come to Grand Rapids for a wonderful three-day concentrated postgraduate course—and visit the scientific and technical exhibits (in the Civic Auditorium) to see and hear about something NEW.

(Continued on Page 822)

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(Continued from Page 820)

The National Gastroenterological Association announces its Course in Postgraduate Gastroenterology, to be given at the Drake Hotel in Chicago, September 20-22, 1951. For information and enrollment, write to the Association, Department GSJ, 1819 Broadway, New York 23, N. Y.

* * *

Charles E. Dutchess, M.D., formerly of Detroit, and more recently Medical Director of Schenley Laboratories, Inc., in New York, was recently made Vice President of the Corporation. Dr. Duchess left Detroit and became Medical Director of Schenley in 1944. He is in charge of clinical investigation and professional relations and services. He will continue his headquarters at the Schenley Laboratories New York office.

Arthur C. Emelin was recently made President of Schenley succeeding the late I. J. Seskis.

Congratulations, Dr. Dutchess and President Emelin!

* * *

The American College of Surgeons will hold its 37th annual Clinical Congress in San Francisco, November 5-9, 1951, with headquarters at the Fairmont Hotel and Civic Auditorium.

For program and information, write the College at 40 E. Erie Street, Chicago, Illinois.

* * *

The International College of Surgeons, United States Chapter, will hold its 16th Assembly at the Palmer House, Chicago, September 10-13, 1951. For program and complete information, write Arnold S. Jackson, M.D., Secretary, Jackson Clinic, Madison, Wisconsin.

* * *

J. S. DeTar, M.D., Milan, Councilor of the Fourteenth District, presented the following talks in recent months:

February 15—Detroit Medical Club: "Problems Incident to the Report of the Commission on the Healing Arts."

March 30—Receiving Hospital Resident Staff, Detroit: "Rural General Practice; Its Advantages."

April 17—Blue Shield, Inc. National, Biloxi, Mississippi: "Problems of Blue Shield from the General Practitioner's Viewpoint."

May 3—Junior AMA, Ann Arbor: "Highlights in Current Problems Facing the Medical Profession."

May 9—General Practice Section, St. Joseph's Hospital, Ann Arbor: "Standardization of Medical Practice in Hospitals."

June 14—Federation of Women's Clubs, Ypsilanti: "To Your Health."

June 23—Dale Carnegie Club International, Detroit: "Human Relations and the Family Doctor."

* * *

Medical Authors

Robert W. Buxton, M.D., Dean K. Ray, M.D. and **Frederick A. Coller, M.D.**, Ann Arbor, are authors of an original article: "Acute Cholecystitis" which appeared in JAMA of May 26.

Frederick A. Coller, M.D., and **Robert E. L. Berry, M.D.**, Ann Arbor, published an article, "Fluid and

(Continued on Page 824)



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Surgical Technic, Surgical Anatomy and Clinical Surgery, four weeks, starting August 6, September 10, October 8.
Surgical Anatomy and Clinical Surgery, two weeks, starting July 23, August 20, September 24.
Basic Principles in General Surgery, two weeks, starting September 10.
Surgery of Colon and Rectum, one week, starting September 17, October 15.
Esophageal Surgery, one week, starting October 15.
Thoracic Surgery, one week, starting October 8.
Gallbladder Surgery, ten hours, starting October 22.
Breast and Thyroid Surgery, one week, starting October 1.
General Surgery, one week, starting October 1.
Fractures and Traumatic Surgery, two weeks, starting October 8.

GYNECOLOGY—Intensive Course, two weeks, starting September 24, October 22.
Vaginal Approach to Pelvic Surgery, one week, starting September 17, November 5.

OBSTETRICS—Intensive Course, two weeks, starting September 10, November 5.

MEDICINE—Intensive General Course, two weeks, starting October 1.
Gastroenterology, two weeks, starting October 15.
Electrocardiography and Heart Disease, two weeks, starting October 22.

UROLOGY—Intensive course, two weeks, starting September 24.

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(Continued from Page 822)

Electrolyte Balance in Intestinal Obstruction," in *Minnesota Medicine,* May, 1951.

Joseph H. Shaffer, M.D., of Detroit, published an article, "Practical Points in Allergy," in *Minnesota Medicine,* May, 1951.

Claire L. Straith, M.D., and Morrison D. Beers, M.D., of Detroit, published an article, "Scalp Avulsions, Report of Early Homo and Zoo-Grafting and Recent Split Scalp Grafting," in *Plastic And Reconstructive Surgery Journal,* October, 1950.

Robert W. Buxton, M.D.; Dean K. Ray, M.D., and Frederick A. Coller, M.D., of Ann Arbor, published an article, "Acute Cholecytitis," in *The Journal of the American Medical Association,* May 26, 1951.

Reed Cranmer, M.D., of Ann Arbor, published an article, "Nystagmus Related to Lesions of the Central Vestibular Apparatus and the Cerebellum," in *Annals of Otology, Rhinology and Laryngology,* March, 1951.

Richard C. Schneider, M.D., and William M. Hegarty, M.D., Ann Arbor, published an article, "Extradural Hemorrhage as a Complication of Otological and Rhinological Infections," in *Annals of Otology, Rhinology and Laryngology,* March, 1951.

C. D. Selby, M.D., of Ann Arbor, published an article, "Physical Examination in Industry as a Cancer Case-Finding Procedure," in the *Industrial Medicine and Surgery Journal,* June, 1951.

Harold F. Falls, M.D., of Ann Arbor, published an article, "Sex-Linked Occular Albinism Displaying Typical Fundus Changes in the Female Heterozygate," in the AMA *Journal of Ophthalmology,* May, 1951.

E. S. Gurdjian, M.D., and J. E. Webster, M.D., of Detroit, published an article, "Cerebrovascular Accidents: Surgical Management with Particular Reference to Massive Intracranial Hemorrhage," in the AMA *Archives of Surgery,* May, 1951.

James R. Rogin, M.D., and Marion W. Jocz, M.D., of Detroit, had an article, "The Relative Infrequency of Occupational Dermatoses in Automobile Workers," in *Industrial Medicine and Surgery,* May, 1950.

Coleman Mopper, M.D., and James R. Rogin, M.D., Detroit, had an article, "Granuloma Fissuratum Healed by Penicillin Troches," in the *Archives of Dermatology and Syphilology,* November, 1950.

Coleman Mopper, M.D., and James R. Rogin, M.D., Detroit, had an article, "Benign Solitary Lymphocytoma," in the *Archives of Dermatology and Syphilology,* February, 1951.

James R. Rogin, M.D., of Detroit, had an article, "Allergic Eczematous Reactions of the Nail Bed Due to 'Under Coats,'" in the *Archives of Dermatology and Syphilology,* June, 1950.

Cyrus C. Sturgis, M.D., of Ann Arbor, published an article, "Treatment and Prognosis in the Leukemias and Allied Disorders," in *Postgraduate Medicine,* May, 1951.

* * *

The Michigan Pathological Society held its spring meeting at Hurley Hospital, Flint, Michigan, the afternoon and evening of May 12, 1951, Drs. G. R. Backus and R. J. Jermstad acting as hosts.

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The program was a seminar of eighteen cases which were unusual and were diagnostic problems.

Dr. A. J. French of Ann Arbor presided as president of the Society.

* * *

The Michigan Triological Society met at the Lansing Country Club, Thursday, May 24. The speaker was D. R. Slaughter, M.D., director of the Tumor Clinic, Illinois Research Hospital, Chicago. His topic was "Cancer of the Head and Neck."

New officers elected are president, Frank Heckert, M.D., of Lansing; secretary, W. R. Klunzinger, M.D., of Lansing.

* * *

The Detroit Academy of Radiology at a meeting May 3 elected **Horace Porter, M.D.**, of Jackson, as president.

* * *

Michigan Tumor Registry

The Michigan Pathological Society has announced that Henry Tesluk, M.D., has been appointed director of the Michigan Tumor Registry as of July 1, 1951.

Dr. Tesluk graduated from Cornell Medical School, New York City, in 1943, and divided his internship between New York Hospital and the Army Hospital at Fort Robinson, Arkansas.

His training in pathology was continued at the University of Rochester, N. Y., under Drs. G. Burroughs Mider and G. H. Whipple, where he also engaged in teaching and research under the Atomic Energy Commission. For the past two and a half years Dr. Tesluk has been connected with the pathology department, Presbyterian Hospital, Chicago.

The Michigan Tumor Registry is housed at the Detroit Institute for Cancer Research, 4811 John R. Street, and its work supported by a grant from the Michigan Cancer Foundation. Each pathologist in Michigan is requested to file a slide and, if possible, a block of tissue together with a clinical abstract of each cancer patient seen. For this service the pathologist will receive $1.00 per report.

The material filed with the registry will be available to physicians for study. It is expected that it will prove of special value to those studying for specialty board examinations. The registry material also will be available for postgraduate study. The registry is controlled by an administrative committee and, in addition, there is a board of consultants appointed for a three-year term with staggered membership. A member of the Cancer Control Committee serves on this consulting board.

The Michigan Tumor Registry, in time, should add materially to the resources of tumor pathology already well represented in the pathology departments of Michigan's two medical schools and also in many of the larger hospitals of the state. The combined resources of these institutions will make Michigan an outstanding state in the wealth of tumor pathological material available for clinical study and research.

* * *

Rhode Island Plan Operates Under Deficit.—Rhode

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*At Performance Physiology Laboratories, University of Southern California; Researchers: Associate Professor Laurence E. Morehouse, Ph.D. and Nathan Hack.

Island's compulsory cash sickness insurance program is still operating in the red.

The cash sickness program's only source of income is a one per cent levy on wages of Rhode Island workers up to a maximum of $30 a year for each individual. The special report issued recently by the state's Department of Employment Security points out that a levy of 1¼ per cent is necessary, other things being equal, to make the program self-sustaining if the present scale of benefit payments is maintained.

Last year the program took in $5,373,510 and paid out $6,213,064, leaving a deficit of $839,554. The program thus had to dip into its reserves, which now stand at $34,000,000.

* * *

Commerce Department Writing Up Physicians' Income Survey.—The physicians' income survey, begun last summer under sponsorship of Commerce Department and the AMA, is nearing completion. Commerce is working on the first draft of the article which will cover about fifteen pages in the July issue of *Survey of Current Business,* a Commerce Department publication. When the project was undertaken, Commerce hoped to complete it by last December, but the percentage of returns was so high that statisticians were swamped. Some items, placed on the questionnaire at the request of AMA, will be mentioned but not developed by Commerce, leaving further breakdowns and analysis to AMA's Bureau of Medical Economic Research.

* * *

MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

Second Annual Convention—Grand Rapids
September 26 and 27, 1951

PROGRAM

Wednesday, September 26

A.M.

9:30 Registration—Morton Hotel—Mezzanine

10:30 Movie: "Energy Release from Food"—UPJOHN DRUG COMPANY

11:30 "Your Employers Professional Ethics and You"—JOHN PEDDEN, M.D.

P.M.

12:30 President's Luncheon—Peninsular Club (Reservations)

2:00 Civilian Defense and Blood Bank (Speaker to be announced)

3:00 Security: Social and Personal
MR. R. KIRK SMITH, New England Mutual Life Insurance Co.

3:45 Coffee Hour—
(Sponsor to be announced)
AB Rooms—Mezzanine

4:30 View Exhibits—Civic Auditorium

Evening—Open

Thursday, September 27

9:30 Registration—Morton Hotel—Mezzanine

10:00 (to noon) Medical Arts Surgical Supply—Medical Equipment Clinic

10:00 Aspects of Atomic Warfare—
MISS GERTRUDE LEVANDOWSKI, R.N., Educational Director of Grand Rapids Health Department

11:00 Movie: "Breast Cancer"
C. ALLEN PAYNE, M.D., Chairman, Cancer Committee of Kent County Medical Society

M.

12:00 Luncheon—Michigan Hospital and Michigan Medical Service—Morton Hotel Banquet Room—Reservations

P.M.

2:00 Business Meeting and Election of Officers—Ballroom

4:00—View Exhibits—Civic Auditorium

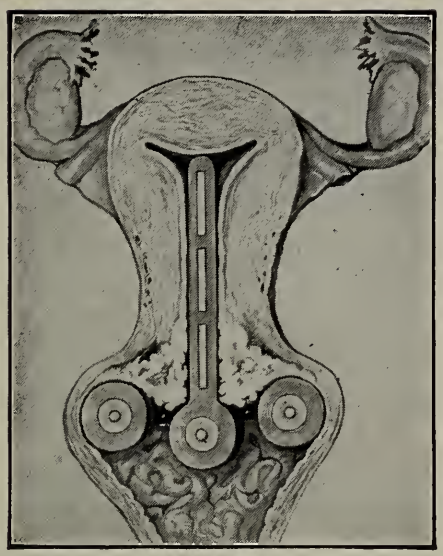
6:00 COCKTAIL HOUR—PROFESSIONAL MANAGEMENT—Morton Hotel Banquet Room

7:00 BANQUET—Morton Hotel Ballroom (Reservations)

* * *

Thirty-four Bills to establish cash sickness or disability compensation programs have been introduced this year in thirteen of the state legislatures and in Alaska. Fifteen of the bills provides for state monopoly as in Rhode Island. The California and New Jersey optional pro-

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visions are followed in ten of the bills. The other nine are patterned after the New York program of compulsory coverage but under private plans. In Michigan, Pennsylvania and West Virginia study commissions have been proposed to report after the current legislative sessions.

* * *

Compensation Bureau Pays $5,100,000 For Medical Care.—Labor Department's annual report lists $5,100,000 paid for treatment of Federal Compensation Act patients and their transportation, with 4,000 private physicians sharing in the payments on a fee-for-service basis. A total of 67,000 payments were certified during 1950, or 65 per cent more than the average for prewar years. The act places no limitation on necessary medical and hospital services for beneficiaries, who include all government employes and certain categories of private employes under federal compensation jurisdiction, such as longshoremen and harbor workers. "Wherever practical," the report says, "these services and supplies are furnished by United States medical officers and hospitals. For this purpose, hospitals and dispensaries of the Public Health Service and Federal Security Agency are available without charge, as are, to a limited extent, the hospitals under the control of the Bureau of Indian Affairs. Army and Navy hospitals are generally used only for the treatment of civilian employes of the National Military Establishment (who are covered by workmen's compensation)." Total expenditures of the Bureau of Employes' Compensation, which administers the program, were $25,000,000 in benefits to 115,000 injured federal workers and $9,125,000 to eligible private workers, exclusive of medical costs.

HEMATOMA OF THE VULVA DURING LABOR

(Continued from Page 742)

the wound bed of the left labium tightly packed with iodoform gauze. At this time the patient developed mild shock but rapidly responded to treatment.

On the second postpartum day the patient's red blood count was 2,440,000 with 6.8 gms. hemoglobin. She was given a transfusion of 500 c.c. of citrated blood. On the following day her temperature rose to 103.4° F. Upon removal of the gauze packing the temperature dropped to normal.

Convalescence was uneventful, and she was discharged from the hospital on the fourteenth postpartum day. The labial wound appeared almost completely healed. Her hemoglobin was 9.5 gm.

Examination six weeks later revealed complete healing of the wound with no evidence of induration.

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

A TEXTBOOK X-RAY DIAGNOSIS. By British Authors. In Four Volumes, Second Edition. Edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R., Director, X-Ray Department, University College Hospital, London, and Peter Kerley, M.D., F.R.C.P., F.F.R., D.M.R.E., Director X-Ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. Volume II with 605 illustrations. Philadelphia: W. B. Saunders Co., 1951. Price $15.00.

The first edition of the work by these authors, which came out in 1940, was a very welcome addition to the library of any physician, but especially to the library of a person interested in Roentgenology.

The new edition, just out, of which I have seen only Volume II, is very much expanded. This volume is so designed that it will be of aid to all internists, especially those interested in cardiology and chest, as well as to the radiologist.

The scope of the book is profound, the material well presented and illustrated.

The printing is easily read. The reproductions are good. The only real criticism is based on the use of positives in the reproduction of the x-ray plates. All of us are used to negatives and, frankly, the positives make me not quite sure that I see that to which the authors are referring.

G. T. P.

VITAMIN E: Annotated Bibliography 1940 to 1950. By Philip L. Harris and Wilma Kujawski. 184 pages. New York: The National Vitamin Foundation, Inc. Price $3.00.

Vitamin E covers many bits of knowledge. When the vitamins were first given attention we begged for a tabulation or monograph which would explain them to us. Now this bibliography is published and covers the papers and authors of ten years. There are several considerations, occurrence, determination, chemistry, physiology and pathology, pharmacology, nutrition and metabolism, medical and therapeutic use and veterinary use. 1562 articles are listed, with names of authors, reference to publication, and a short paragraph on the contents of the article. This is a very interesting compendium.

GROWTH AND DEVELOPMENT OF CHILDREN. By Ernest H. Watson, M.D., Associate Professor, and George H. Lowrey, M.D., Instructor, Department of Pediatrics and Communicable Diseases, University of Michigan Medical School. Chicago, Ill.: The Year Book Publishers, Inc., 1951. Price $5.75.

Another group of Michigan doctors has published a very fine book. The studies have been carried on for many years, in an attempt to make available sources for students in the Departments of Pediatrics. Growth and development have been observed and recorded for comparison from many different angles. Weights, measurements, osseous development, behavior development, endocrine glands are some of the subjects carefully described.

NUTRITION AND CHEMICAL GROWTH IN CHILDHOOD. Volume III. Calculated Data. By Icie G. Macy, Ph.D., Sc.D., Director of the Research Laboratory Children's Fund of Michigan; Past-President, American Institute of Nutrition; Chairman, Maternal and Child Feeding Committee, Food and Nutrition Board, National Research Council; Consultant for Nutrition to the Pediatric Staff of the Children's Hospital of Michigan; Honorary member of the Society for Pediatric Research; Member of the American Society of Biological Chemists and of the Society for Research in Child Development; Fellow, American Public Health Association. With a Foreword by Helen A. Hunscher, Ph.D., Head of the Department of Home Economics, Western Reserve University, Cleveland, Ohio. Springfield, Ill.: Charles C Thomas. Price $2.00.

After the few introductory pages this book is made up completely of tables, of which there are 1,330 on every subject of nutrition. For instance, a page table Successive Calcium intake, absorption, retention. On the next page is Cumulated Calcium intake, absorption and retention. The whole book is made up of a vast amount of this type of information.

Invaluable as a source reference.

PIONEER DOCTOR. By Lewis J. Moorman, M.D. Norman, Okla.: University of Oklahoma Press, 1951. Price $3.75.

Doctor Moorman has told his own story in a very delightful way. He is an accomplished writer of papers, monographs, and has served as Editor of the *Journal* of the Oklahoma State Medical Society. The story is of a busy life which encompassed many steps in the growth of the modern medical man, including experience in teaching, economic plans, country practice, and especially over twenty-five years in the treatment of tuberculosis. Well deserving the time spent with a brilliant man in his reminiscences.

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WHEN MINDS GO WRONG. A Simple Story of The Mentally Ill—Past, Present and Future. By John Maurice Grimes, M.D., twenty years as psychiatrist; four years a staff member of the Council on Medical Education and Hospitals of the American Medical Association; author of "Institutional Care of Mental Patients in the United States." First Edition. Illustrations by K. Alexandra White. Published and Distributed by the Author. Price $5.00.

Reading between the lines, one can feel much frustration and bitterness in the author. He shows considerable determination to have his book published even though it is being done at his expense. It is difficult to determine to whom the author is addressing it. If to the laymen, it can only add confusion and fear in their minds. He is critical of our mental hospital system without ideas of correction beyond what has been the program of hospital administrators for years. As study material for the physician, he offers nothing. His meager description of mental illness would cause one to suspect whether or not he had any but a superficial psychiatric training.

G.K.S.

REST AND PAIN. By John Hilton, F.R.S., F.R.C.S. Edited by E. W. Walls, M.D., Ch.B., B.Sc., Professor of Anatomy in the University of London at Middlesex Hospital Medical School, and Elliott E. Phillipp, M.A., M.B., B.Chir., M.R.C.S., M.R.C.O.G., Honorary Demonstrator in Anatomy at Middlesex Hospital Medical School, in collaboration with H. J. B. Atkins, D.M., M.Ch., F.R.C.S., Director of the Department of Surgery, Guy's Hospital. Philadelphia: J. B. Lippincott Co. Price $10.00.

This English volume consists of a series of eighteen lectures given by Dr. Hilton between the years 1860 and 1862. For a decade the book has been out of print, but has now been republished and in some ways revised. Dr. Hilton was a profound anatomist and surgeon who through keen observation was able to make correct diagnoses without the use of thermometers, x-rays and laboratory facilities that are at the disposal of surgeons today. For this reason and also because of his philosophical approach to the subject of surgery, the book would appear to be of great interest to surgeons and orthopedic men especially. He understood the value of rest and the work of Nature in curing his patients. In our busy life today sometimes we are not sufficiently apprehensive of those needs.

This book can be recommended to any studious physician who is interested in the historical aspects of his profession. Furthermore, much valuable information can be derived.

G.K.S.

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieut. Colonel, M.R.C., U. S. Army; Former Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association. New, 22nd Edition. 1,736 pages, with 720 illustrations, including 48 plates. Philadelphia and London: W. B. Saunders Company, 1951. Price $10.00.

Dorland's Medical Dictionary has become standard. The new twenty-second edition is now available. This issue is the completion of a half century and contains hundreds of new terms and definitions. The print is clear, words in black-face, two columns to the page and the edge thumb-indexed.

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(Continued from Page 745)

overheads as low as 25 to 30 per cent, while the extremely small practices have overheads as high as 45 to 50 per cent. The numerical average of all our doctors runs 38 to 40 per cent. The specialty is very significant—surgical specialties averaging 30 to 33 per cent, internal medicine 35 to 37 per cent, general practice about 38 to 40 per cent and pediatrics 40 to 43 per cent.

Much could be written about the probable reasons for these variations, but to us the important thing is what to do about it. We believe that increased volume, not through higher fees, but by better office efficiency, better trained office assistants and better facilities, even at the expense of slightly higher overheads, can frequently produce higher net incomes with no more effort on the part of the doctor. With the present shortage of doctors this, to us, is the desirable objective rather than trying either to reduce costs in spite of higher prices, or to offset higher costs with higher fees. To do this requires study and planning coupled with the use of any outside assistance which is competent and available.

The doctor should no longer limit his responsibility to his professional efforts and let the business side of his practice run itself. Likewise, although all possible detail should be delegated to his office staff when they are capable, decisions as to policy should never be delegated. The doctor must run his office and not permit it to run him.

Following out such a program, coupled with equally intelligent handling of the personal business can still provide a reasonable security for old age, a problem the doctor still has to solve for himself, and which will be discussed next month.

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SCHERING

Michigan State Medical Society Moves Into Its New "Home"

A large roomy dwelling which was built before the turn of the century is the new "home" of the Michigan State Medical Society in Lansing.

The house, owned formerly by the family of the late William G. Kerns, is located at 606 Townsend Street, a few blocks from the Capitol and the downtown area.



When MSMS purchased the property, it ended a long-time search for new quarters for the rapidly expanding organization. The Executive Office staff moved from the Olds Tower on July 27 with little interruption of MSMS business.

The Townsend Street building has been converted into offices. The new quarters have eased the need for added office space for members of the Lansing staff.

Closer co-ordination with MSMS units resulted from the move. Frank L. Rector, M.D., Secretary of the MSMS Cancer Control Committee, whose office has been in Jackson, and Leon DeVel, M.D., Grand Rapids, Co-ordinator of the MSMS Rheumatic Fever Control Centers, were assigned headquarters space at 606 Townsend Street.

Another innovation of the new quarters is the establishment of a conference room for meetings of The Council, its Executive Committee, and other MSMS Committees (numbering fifty-seven).

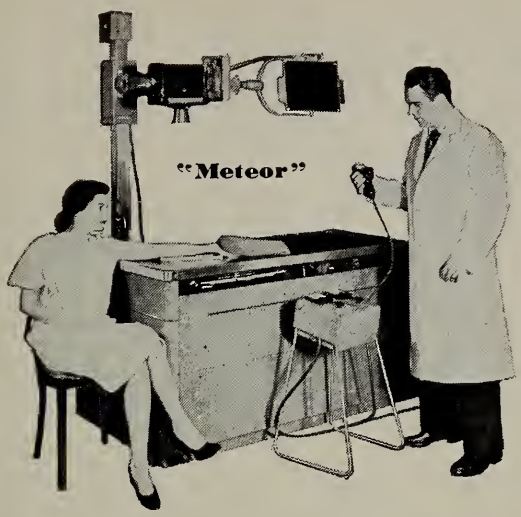
All three floors of the house, plus the basement, are utilized to give the best possible service to Michigan doctors of medicine.

The offices are housed in a building which is one of Lansing's historic dwellings. The home was constructed in 1896 by Chester E. Woodberry, a founder of the Capitol Savings and Loan Company.

The house was later owned by James Thompson, a secretary to R. E. Olds. Former Superintendent of Public Instruction Fred B. Keeler also lived in the house at one time.

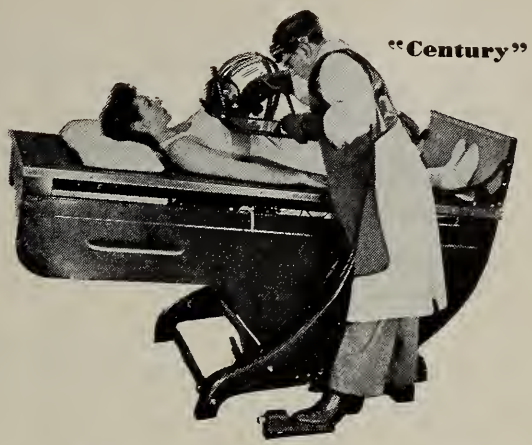
William G. Kerns, one-time owner of the Kerns Hotel, was the next in line of home purchasers.

The Michigan State Medical Society bought the building from the heirs of Mr. Kerns.



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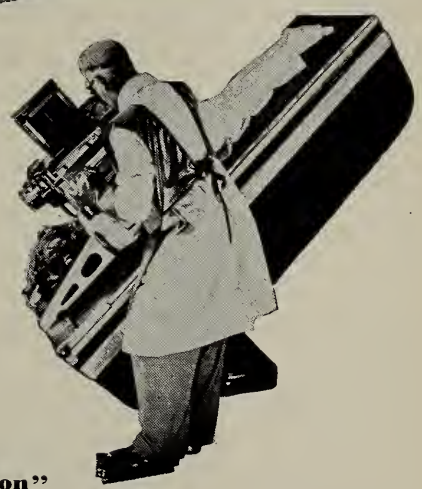
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Introduced a scant two years ago, the Picker "Constellation" took the X-ray world by storm; its reputation has since grown to towering proportions. Never before has there been an X-ray table with which a radiologist could do so many things so easily and efficiently. Under absolute instant-reversing control he can, for example, back-angle it to full 45° Trendelenburg tilt during myelography.

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You and Your Business

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

1951		
Sept. 26-27-28	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION	Grand Rapids
October 12	Third Michigan Cancer Conference	East Lansing
Autumn	MSMS Postgraduate Extramural Courses	State-wide
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health)	Flint
Nov. 7-8	Fifth Postgraduate Lectures, American Academy of General Practice of Wayne County (Michigan)	Detroit
1952		
March 12-13-14	MICHIGAN POSTGRADUATE CLINICAL INSTITUTE	Detroit
Spring	MSMS Postgraduate Extramural Courses	State-wide
April	Third Michigan Industrial Health Day	Not decided
April 9	Genesee County Medical Society's Cancer Day	Flint
April	Highland Park Physicians Club Clinic	Highland Park
May 1	Ingham County Medical Society's Clinic Day	Lansing
May	Wayne University College of Medicine Alumni Association Clinic Day and Reunion	Detroit
May 15	Jackson County Medical Society's Clinic Day	Jackson
August	Third Annual Clinic, Central Michigan Committee, ACS Michigan Committee on Trauma, plus Michigan National Guard Medical Personnel, and Michigan Society of North Central Counties	Grayling
1952		
Sept. 24-25-26	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION	Detroit
Autumn	MSMS Postgraduate Extramural Courses	State-wide

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

HIGHLIGHTS OF MID-SUMMER MEETING OF THE COUNCIL

July 1-2-3, 1951

Eighty-five items were considered by The Council at its mid-summer meeting. Chief in importance were:

- Monthly financial reports, as well as semi-annual financial report, were presented, studied and approved. Bills payable were inspected and authorized to be paid.
- Beaumont Memorial (Early House) on Mackinac Island. Discussion with Mr. W. F. Doyle, Chairman of the Mackinac Island State Park Commission, resulted in a motion that immediate promotional work on architectural and contracting plans and specifications for the restoration of the Early House as a Beaumont Memorial be authorized, with additional research into the historical records of the Early House. A Committee to work with Chairman Doyle, in the immediate project at hand was appointed: C. E. Umphrey, M.D., Detroit, O. O. Beck, M.D., Birmingham, and W. D. Barrett, M.D., Detroit.
- EMIC Bill in Congress. The report of the AMA's Committee on Maternal and Child Care was presented.
- Reporting of contacts by laboratories: motion that "The Council urge that all physicians and laboratories carry out the full import of need for reporting all infectious diseases insofar as the existing laws are concerned"—was carried.
- Property at 606 Townsend St., Lansing 15, Michigan. Authorization for final purchase of this property was given by The Council (transfer of the property was made on July 5, 1951). Permit to remodel, as necessary, was authorized to be secured prior to September 1, 1951.
- Report of Chairman of MSMS Delegates to the American Medical Association House of Delegates (W. D. Barrett, M.D., Detroit) was presented.
- Advisory Committee on Study of Michigan Crippled Children Commission Acts (as per State Senate Resolution No. 54). Two MSMS representatives were nominated: C. M. Hanson, M.D., Kalamazoo, and E. E. Martmer, M.D., Detroit.
- Request for change in MCCC procedures. The Council requested the Michigan Crippled Children Commission to amend Sections F and G of its "Procedures Governing Payment of Physi-

(Continued on Page 850)

taming an amine

better to tame asthma



Asthmatics can now have the desired relief of such sympathomimetic amines as epinephrine and ephedrine *but with minimal vasopressor risks and minimal psychomotor discomfort.*

Upjohn researchers have, by molecular modification, tamed an amine better to tame asthma and have created orally effective Orthoxine Hydrochloride.

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for adults: ½ to 1 tablet (50 to 100 mg.)
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Upjohn Research *for Medicine... Produced with care... Designed for health*

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HIGHLIGHTS OF THE COUNCIL MEETING

(Continued from Page 848)

cians' and Surgeons' Fees." (Subsequently, changes were made by the MCCC).

- The personnel of the Committee on Arrangements for the 1952 Michigan Clinical Institute (Book-Cadillac Hotel, Detroit, March 12-13-14, 1952) was approved, with E. F. Sladek, M.D., Traverse City, as Chairman.
- Annual Reports of all MSMS Committees were presented and referred to the MSMS House of Delegates.
- Treasurer's Semi-annual Report was presented by A. S. Brunk, M.D., Detroit.
- Advisory Council to State Board of Registration of Nurses (representing MSMS). Vacancy was reported and the name of E. M. Vardon, M.D., Detroit, was nominated to the Governor.
- Proposed changes in Medical Practice Act. Report was presented that at the June 14 meeting of the Michigan State Board of Registration in Medicine, the Board proposed a $5 annual registration fee for all Michigan doctors of medicine. Statement was made that the State Board would approve the issuing of temporary annual licenses to residents in hospitals contingent upon the MSMS approving annual registration of physicians in Michigan. The Council referred the subject of annual registration of Michigan doctors of medicine to the MSMS House of Delegates, without recommendation. It further instructed W. B. Harm, M.D., Detroit, as Chairman of the MSMS representatives to the Liaison Committee on Study of Medical Practice Act, to submit an official report of his Committee for the *Handbook for Delegates* with other material as he may wish to include.
- The monthly progress reports of the Rheumatic Fever Control Co-ordinator, of the Legal Counsel, and of the Public Relations Counsel were presented and approved.
- The annual joint meeting with the Michigan Crippled Children Commission was held, with four of the five Commissioners being present (the fifth being ill). Three matters of mutual interest were discussed.
- The reports of the three Standing Committees of The Council (Finance, Publication, County Societies) were presented and approved.
- The Annual Report of The Council (consisting of 12 closely typewritten legal size pages) was read, amended in several minor details, and approved. Several items for the Supplemental Report of The Council were decided upon.
- A joint meeting with the Michigan Health Council was held and the "mid-year review of activities and progress of MHC" was presented by seven of its officers.
- The annual joint meeting with the Michigan Hospital Association was held, ten of its officers being present. Two matters of mutual interest were discussed and decided upon.
- Committee reports. The following Committee reports were given consideration: (a) Permanent Conference Committee, meeting of May 23; (b) Iodized Salt Committee, May 23; (c) Postgraduate Medical Education Committee, May 24; (d) Mental Hygiene Committee, May 24; (e) Maternal Health Committee, May 24; (f) Study of Basic Science Act, June 4; (g) 1952 Michigan Clinical Institute Arrangements Committee, June 20; (h) Civil Defense Conference, St. Louis, June 10, 1951 (W. H. Gordon, M.D., MSMS representative); (i) Quarterly financial report of Cancer Control Committee; (j) Rheumatic Fever Control, July 2.

AMERICAN MEDICAL EDUCATION FOUNDATION FUND

Apropos the Medical Educational Fund sponsored and established by the American Medical Association:

A RESOLUTION TO EARMARK MEDICAL EDUCATION FUNDS FOR LOCAL USE

WHEREAS, the American Medical Association is urging each doctor to contribute $100.00 to a national Medical Education Fund and,

WHEREAS, the Michigan State Medical Society has approved such contributions and,

WHEREAS, the alumni of the Wayne University School of Medicine are earmarking their contributions for Wayne University and,

WHEREAS, both the Michigan Schools of medicine need funds very badly for many projects and

WHEREAS, the Michigan State Medical Society and the American Medical Association will get credit for such funds as are raised locally and earmarked for local use and,

WHEREAS, those doctors in Wayne County who are not alumni will wish to support either the Wayne University College of Medicine or the University of Michigan College of Medicine or some other local project, therefore,

BE IT RESOLVED that all doctors of medicine be urged to contribute to the educational fund and that such contributions be earmarked for the Wayne University College of Medicine or the University of Michigan College of Medicine or some other local project, therefore,

state.

The American Medical Association has called upon individual physicians in the United States to

(Continued on Page 852)



Crude Liver Plus Two Important Ingredients . . .

Liver Injection USP Crude, 2 units

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15 Micrograms of the Anti-Anemia Factor Vitamin B_{12}

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AMERICAN MEDICAL EDUCATION FOUNDATION FUND

(Continued from Page 850)

donate one hundred dollars to an educational fund for the purpose of aiding medical schools throughout this country. Disbursements will be made from the fund by a national committee based upon medical school needs.

A decision has been made by the AMA that such donations instead of being made to a national fund may be directed to a local medical school. A credit for the AMA and the MSMS still obtains. In view of the well-recognized need for supplementary funds at the Wayne University College of Medicine, it would seem reasonable that the physicians in the state of Michigan, particularly in Wayne County, could direct their donations to the local school. Alumni of Wayne University and perhaps graduates of other schools who have located here would find greater satisfaction in such a specific donation.

Kindly direct your educational fund donations to Dr. Gordon Scott, Dean of Wayne University College of Medicine, who will in turn notify the AMA and the MSMS.

DE.CA102 NL PD-WUX CHICAGO ILL 10
Dr. Wilfrid Haughey, Editor
65 West Michigan Ave., Battle Creek, Mich.

Money donated to American Medical Education Foundation Fund may be earmarked by donor for any school but cannot be earmarked for special projects. Dean of school must have liberty to spend it as he sees fit.

George F. Lull

OUTSTANDING MEDICAL EXHIBIT FOR AMA MEETING

Plans are being made for an outstanding scientific exhibit in connection with the Clinical Session of the American Medical Association to be held in Los Angeles, December 4 to 7.

There will be special exhibits on fractures, overweight, nutrition and health, and noise in industry.

Groups of exhibits on cancer, diabetes and heart disease will be developed with the advice and cooperation of specialists in those subjects. Exhibits on obstetrics and gynecology, pediatrics, internal medicine, surgery, dermatology and miscellaneous subjects will be given prominence.

Main emphasis of the exhibit will be placed on the teaching value for the physician in general practice, but the interests of the specialists will not be overlooked.

The scientific exhibit will be located on the balcony floor of the Shrine Convention Hall, easily reached by stairways from the technical exposition on the first floor and connecting with Al Malaikah Temple, in which will be located the lectures, clinical presentations, television and motion pictures.

E. J. McCormick, M.D., of Toledo, is chairman of the Committee on Scientific Exhibit. Members of the committee are: L. W. Larson, M.D., of Bismarck, N. D., and Thomas P. Murdock, M.D., of Meriden, Conn., with George F. Lull, M.D., Ernest B. Howard, M.D., of Chicago, assistant secretary of the AMA, and Austin Smith, M.D., of Chicago, editor of *The Journal AMA,* as ex officio members. Thomas G. Hull, Ph.D., of Chicago, is director of the scientific exhibit.

GOVERNOR REAPPOINTS OSTEOPATH; SENATE REJECTS

In May, 1951, Governor Williams appointed Osteopath Emmett Binkert of Carson City to the Michigan Crippled Children Commission. This appointment was rejected by the Senate Business and Rules Committee on May 25; however, no action was taken by the entire Senate on its Committee's decision.

Just a few days before the Senate action on Binkert, Attorney General Millard rendered a lengthy opinion on Senate confirmation of the Governor's various appointments to state boards and commissions. Applying this opinion to the MCCC appointment, Binkert was finished as a member of the Michigan Crippled Children Commission—unless reappointed by the Governor.

Governor Williams again disappointed his many friends in the medical profession by reappointing Binkert to the Michigan Crippled Children Commission on July 9, after the Legislature had adjourned.

The confirmation or rejection of Osteopath Binkert, as a member of the Crippled Children Commission, was presented to the State Senate when it reconvened in special session on August 20, 1951. On this occasion, the *Senate as a whole* (not merely the Committee on Business) rejected this unwise and illogical appointment, thus giving generous support to the crippled children of Michigan and to the maintenance of the present high standards of medical service for these wards of the State.



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Say you saw it in the Journal of the Michigan State Medical Society

Cancer Comment

MORE UNFAVORABLE CANCER CURE PUBLICITY

At all too frequent intervals new cancer diagnostic tests or a "cure" flash across the newspaper horizon. They occupy reading space for a day or two and then are forgotten. In practically all cases their promoters have failed to observe the well-known procedures for announcing new discoveries in the scientific research or clinical fields.

One of the latest of these announcements relates to a product called "Krebiozen," which has aroused some interest in this country and in Brazil largely because it was put out under the name of the Director of the Department of Clinical Science, University of Illinois, Chicago. This brochure detailed the treatment of 22 cancer patients with this remedy of secret composition in which it was claimed the majority of the patients showed at least a temporary improvement although at last reports nine of them had died. That this substance and methods of publicity regarding its value have been open to serious question is seen from the following editorial in the Proceedings of the Institute of Medicine of Chicago, May 15, 1951.

Krebiozen

"Medical science has established procedures and standards of reporting progress of experimental and clinical results. The announcement in Chicago, March 26, 1951, of krebiozen, described as 'an important step' toward a final goal of chemotherapy of cancer, ignored these procedures and standards. There was no publication in a medical or scientific journal; there was no presentation made before a learned society. Instead, krebiozen was announced to a mixed group of physicians, medical educators, public officials, and representatives of the press.

"The information provided on this unusual occasion met few of the accepted criteria of medical reporting. One of the essentials when a new biological agent is presented is a clear account of the technique of its preparation or isolation and, when possible, an exact and complete description of its composition. No such information was provided as to krebiozen, except that it was separated from the serum of a horse after 'stimulation' of its reticulo-endothelial cells. Its method of preparation and its composition are expressly stated to be secret. The booklet distributed at this meeting, which purported to give clinical details on twenty-two cases, was gravely deficient for the purposes of evaluation.

"Accepted requirements for medical reporting have developed because of the importance of protecting the profession and the public from false or misleading claims. Violation of these requirements, as the krebiozen incident demonstrates, has unfortunate consequences in arousing false hopes which tend to discredit the medical profession. Such a regrettable disregard for the established practice cannot be condoned. The conventions of reporting exist as safeguards against the well-intentioned motive as well as against that which is dishonest. The collective interests of medical practitioners and investigators of Chicago demand rigorous adherence to these conventions."

THIRD MICHIGAN CANCER CONFERENCE

The Third Michigan Cancer Conference planned for October 12, 1951, will be held on the campus of Michigan State College, East Lansing. It will follow immediately after the Annual Training School of the Michigan Division, American Cancer Society and will be co-sponsored by the Cancer Society and the Michigan Department of Health.

All statewide health-minded organizations, local medical societies and local health units have been invited to send representatives to this meeting.

The general theme of the conference will be individual participation in cancer-control programs. Dr. A. E. Heustis, State Health Commissioner, will open the meeting with a short address on the cancer problem in Michigan. Mrs. Marjorie Karker, Director of Women's Activities, Michigan Farm Bureau, will speak on "Rural Organizations and the Cancer Problem." Madge T. Macklin, M.D., of Ohio State University, Columbus, will discuss "The Place of Heredity in Cancer Development." Dr. Macklin has devoted years to the study of heredity and in addition is an engaging speaker. "Home Care of Cancer Patients" will be discussed from the nursing angle by Miss Hulda Edman, cancer nursing specialist on the staff of the Detroit Visiting Nurse Association. Harrison Sadler, M.D., will present the psychiatric problems of the patient and his family concerned with his home care. "Cancer Education in Schools" will be the subject of a paper by F. L. Rector, M.D., Secretary, Cancer Control Committee, MSMS, who has been

(Continued on Page 960)

for a sound mind and healthy body

plenty of citrus fruit

Diets restricted because of allergies, diabetes, ulcers, etc. are frequently low in vitamin C[1,3,5]—thus adding a nutritive deficiency to the existing condition.[8] In gastric and duodenal ulcers,[2] a subscorbutic state is particularly serious because it interferes with collagen formation and capillary integrity.[3] Florida orange juice alone—or with milk to prevent a possible "burning" sensation—is not only a palatable source of vitamin C, but a quick means for providing an energizing "lift"[5,7] produced by the easily assimilable fruit sugars.[6] Fortunately Florida orange juice is virtually non-allergenic.[4]

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Citrus fruits—among the richest known sources of vitamin C—also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.

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Editorial Comment

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION

GRAND RAPIDS—September 26-27-28, 1951

HEALTH INSURANCE

President Truman's offer last week to give up his health insurance program if its critics "will come up with a better proposal—or even one that is almost as good" shows a commendable flexibility in dealing with a controversial subject. The President still believes that compulsory health insurance is sound. But he also realizes that the chances for enactment of any such plan in the near future are remote. His invitation to compromise is not likely to change the drift of events away from the Administration's proposal.

The President recognized the growth of what he called "private health insurance plans" in recent years and said that he welcomed it, although he feels that these plans "do not meet the problem." In our view, the President minimized the gains that have been made on a voluntary basis. When the first compulsory health insurance bill was introduced in Congress in 1939, fewer than 3 million persons were enrolled in the Blue Cross hospital service plan. Today that enrollment is in excess of 40 million. It is especially comforting to know that this includes more than 465,000 residents of the Washington area. To be sure, this movement sponsored by the American Hospital Association and help up to standards fixed by that association, does not offer complete health protection. But it is now supplemented by the Blue Shield plan, sponsored by the medical profession for the prepayment of medical and surgical care, which is also growing rapidly.

Blue Cross is controlled in each city where it operates by a nonprofit organization that is representative of all segments of the community. What it offers in return for fixed monthly payments is not monetary benefits but hospital service. While the achievements of this co-operative plan among the hospitals themselves are especially outstanding, commercial and accident insurance companies have also added many millions of people to the list of those who are taking advantage of the prepayment principle to meet the cost of hospital and medical care. The President says that 75 million Americans have no health insurance at all. Why the negative approach? If this means that the other 75 million do have some protection against the mounting costs of illness, the gain is enormous. While much remains to be done, both by way of extending the coverage of voluntary plans and in many instances enhancing the benefits paid, we suspect that any compromise likely to be considered will have to be built on the foundations already laid.—*The Washington Post,* June 26, 1951.

ON PRESCRIBING TOO MUCH TOO OFTEN

In the stress of daily practice doctors are sometimes prone to overlook the amount of medication prescribed and the frequency with which it is changed. As a result, the patient often finds himself left with an assortment of half-used prescriptions that represent waste and serve to remind him, long after he has recovered, that his illness might have been managed more efficiently.

The basis for this tactical error in therapy may be found in according too little consideration to the diagnosis and leaning heavily on the therapeutic-diagnostic approach towards cure. It also arises from a failure to take the time and trouble to learn beforehand—away from the din of prejudiced claims—the action of the therapeutic agent to be used, the relative value of similar products and the comparative cost of each. The natural result of this thoughtlessness is to prescribe too much too often, so that the attack on the illness becomes anything but the well-planned campaign it should be, in which all forces and weapons are skillfully deployed. And the complex schedule thus imposed can become an added burden that may even retard recovery.

Much more effective and impressive the approach if, instead of practicing by ear only, the

(Continued on Page 858)

A SMOOTHER READJUSTMENT of the internal environment of the climacteric patient may be anticipated through hormonal replacement (with conjugated estrogens, equine).
Glass, S. J., and Rosenblum, G.: J. Clin. Endocrinol. 3:95, 1943.

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Oral Therapy with Conestron is Potent—and Flexible...

facilitating regulation of dosage to suit the needs of the individual patient.

It is confirmed by abundant clinical experience that Conestron therapy confers a striking sense of well being, with a minimum of untoward side-effects.

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Say you saw it in the Journal of the Michigan State Medical Society

ON PRESCRIBING TOO MUCH TOO OFTEN

(Continued from Page 856)

doctor planned treatment in advance and prescribed indicated medication only in amounts sufficient for the shortest possible duration of the illness, with adequate time allowed for evaluation.

The patient, of all people, would come out ahead both in cure and in cost.

W. S. Reveno, M.D.
Editorial, *Detroit Medical News,*
July 9, 1951

APROPOS THE AMBITIONS OF TRUMAN, EWING AND ALTMEYER

In view of the insidious growth of socialism in Washington during the past two decades and the obvious present urge for bureaucratic power in the affairs of our government, it seems wise to bring to the attention of our readers this paragraph from Trevor-Roper's book The Last Days of Hitler:

"Nor is it only political intelligence which is killed by the lack of criticism inherent in absolute power; for technical progress, however unpolitical in its aim, is equally dependent upon the free opposition of minds and methods which the uniform patronage of a dictatorship must deny. Now that all German secrets have been disclosed, the decline of German science under the Nazis has become apparent. This book illustrates one instance of it; for how could medicine advance with the direction of studies, the allocation of resources, the judgment of results, and the promotion of merit depended upon corrupt charlatans like Morell and Conti and the crackbrained fanatics of the SS. Even in military science the same decline is apparent. Hitler began the war with a group of generals trained to uniform efficiency in the greatest military tradition in the world; he ended with a handful of obedient nonentities, and himself. The military historians of the future may have something to say about Beck and Halder, Manstein and Rundstedt; it is unlikely that they will waste much time on Keitel and Krebs, or even on Kesselring and Schoener. What will they say of Hitler himself?"

It seems the irony of fate that Carlyle's History of Frederick the Great helped to motivate Hitler's megalomaniacal career with its utter disregard for people and political traditions and for law and order.

What will our own future historians say if the people do not rise up in wrath to curb political power. According to Lord Ecton, "Power tends to corrupt, and absolute power corrupts absolutely."

It now appears that we must bring about pressure from the grass roots or face the peril of bureaucratic boots.—Editorial, *The Journal of the Oklahoma State Medical Society,* June, 1951.

"HEALTH SCHEME HITS YOUNG DOCTORS"

Such is the title of a recent article in the *London City Press.* It is especially interesting in view of Aneurin Bevan's resignation from the British cabinet—which probably has far deeper foundations than the supplying of "free" eyeglasses and false teeth. The following is quoted from the article:

In recent weeks there has been a disturbing rise in the number of young doctors who are finding it almost impossible to secure appointments.

Doctors are also finding it extremely difficult to obtain practices. A few practices are advertised each week by the Ministry of Health, but applications for each practice advertised number between 40 and 50.

Under the National Health Scheme doctors are no longer able to buy practices.

The Socialists held that the former system where a doctor had to buy a practice has excluded many young doctors unable to afford to do so.

But now it is practically impossible to obtain a practice, and general practitioners are reluctant to take on assistants because, under the Health Scheme, if they do they suffer financially.

Apparently England is finding out a lot of things the hard way. It will be interesting to see what the next election indicates about the people's reaction to the Labor Government and all of its schemes. — Editorial, *Rocky Mountain Medical Journal,* June, 1951.

For the general practitioner of the early part of this century there were twenty-four hours in each day—he had time, or at least took time, to listen to the patient's and the family story. He was not concerned with noonday luncheon clubs, golf courses, automobile races, fishing, rodeos, the many present day medical and hospital staff meetings to be attended, and Wednesday and Saturday afternoon and Sunday off, and he was not pestered for fund drives for every imaginable thing except a retirement fund for broken down men of medicine. To him duty implied service—and serve he did!

* * *

The closest co-operation between clinician, roentgenologist, and pathologist is imperative in the diagnosis of bone tumors. A diagnosis by any one without the assistance of the other would be, at best, a guess—good or otherwise.

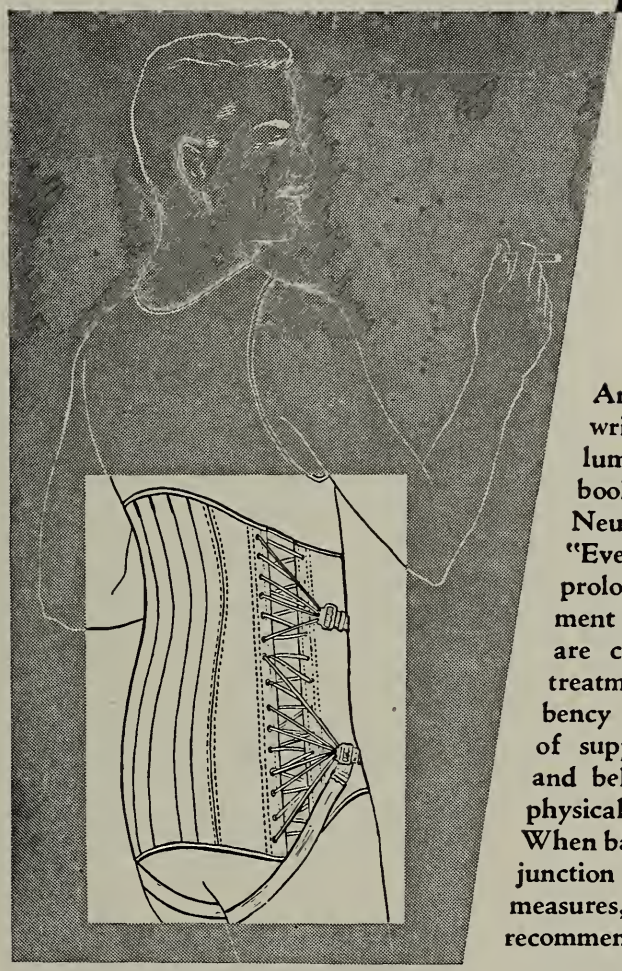
* * *

Pain is nearly always the first symptom, tumefaction the first sign of bone tumor.

* * *

Tumors *of* bone must be differentiated from tumors *in* bone.

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An Orthopedic Surgeon* in writing on the treatment of lumbosacral disorders in his book Backache and Sciatic Neuritis states as follows:— "Every patient should be given prolonged conservative treatment before radical measures are considered. Non-operative treatment consists of recumbency in bed, the application of support (adhesive strapping and belts of various types) and physical therapeutic measures. When backache at the lumbosacral junction is uncontrollable by such measures, a fusion operation is recommended."

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**Philip Lewin, M.D., F.A.C.S.*
Backache and Sciatic Neuritis,
Chapter XXXIX, Page 580
Published 1943 by Lea & Febiger, Philadelphia

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LOW DEATH RATE OF ENEMY PRISONERS DUE TO ARMY MEDICAL SERVICE TREATMENT

Death among North Korean and Chinese Communist prisoners of war treated by the U. S. Army Medical Service at hospitals in Korea for battle wounds and injuries, over a six-month period, have been only seven per cent.

Approximately 37,000 enemy prisoners have been admitted as patients to Army hospitals in Korea.

Prompt medical attention given to POW patients by the U. S. Army Medical Service has resulted in the remarkably low death rate despite great complications present in a majority of the cases treated. The death rate among American wounded receiving medical attention in World War I was eight per cent.

While enemy strength has been depleted by the many diseases found among North Korean and Chinese Communist troops, and the apparent indifference of the enemy to caring for battle casualties, these conditions have placed unusual burdens on U. S. Army medical personnel. During the six-month period from September, 1950, through early March, 1951, for example, 797,316 outpatient treatments were given prisoners of war and vaccinations and immunizations were administered to 179,416.

In sharp contrast to the medical attention given United Nations troops and the common hygienic precautions taken by UN personnel is the lack of attention given to preventive medicine by the enemy.

"Judging by the high incidence of disease among captured Communist troops, the practice of preventive medicine is not being carried out effectively in their forces," according to Brigadier General James S. Simmons, U.S.A., retired, formerly Chief of the Preventive Medicine Division, Office of the Army Surgeon General, and now Dean of Harvard University's School of Public Health. "Captured POW's have had an unduly high incidence of diseases, including leprosy, smallpox, typhus, typhoid, tetanus and other epidemic diseases."

The low and often non-existent standards of medical care provided by the enemy for their own casualties has also added to the U. S. Army Medical Service difficulties in Korea. Even at best, standards of treatment have been low in the Communist forces, with undergraduate medical students filling most medical officers' positions. Little or no provision has been made for drugs, equipment, or evacuation of casualties. Frequently, however, the enemy has shown utter indifference to the value of human life and wounded men are left to die, with no treatment of any kind. While the net result is a depletion of enemy forces, it creates highly complicated and involved cases for the Army.

"There was one big difference between UN troops and the enemy," a U. S. Army hospital staff member caring for POW's reported recently. "Allied soldiers received almost immediate care; the enemy wounded would not see a medical station until captured by UN forces."

Both because of enemy indoctrination and their own low standards of personal hygiene and sanitation, enemy prisoners have initially been difficult patients.

An Army nurse serving with the 117th Evacuation Hospital in Korea, Lieutenant Marie T. Genest of 8634 Dunbarton Road, Detroit, Michigan, has told of the reaction of POW's to treatment by American Army personnel.

"When we first received POW contingents, they were obviously racked with fear of us," she related. "When we picked up some of their stretcher cases for surgery, high piercing screams blasted our ears like bombs bursting on targets. Others would gaze at us from panic-ridden eyes, saying nothing but rigid with dread. Of what? That's where we were stumped and completely baffled.

"Here was an American hospital, prepared to give the same medical care to them that we were giving our own men. We were using the same medical and nursing skills for which the American armed forces are considered outstanding—and yet these POW's were howling objections.

"In an attempt to get at the bottom of the uproar, a French missionary priest was asked to come and talk to the prisoners. Upon interrogation, he discovered that these North Koreans had been instructed that the Americans were vicious, sadistic people who would amputate their arms and legs just for practice."

Subsequent psychological warfare operations carried out by American troops in Korea have changed this attitude on the part of Chinese Communist and North Korean soldiers. Leaflets and loudspeaker broadcasts have convinced them that they will be well treated if they surrender.

Pointing out that the U. S. Army Medical Service has conscientiously lived up to the Geneva Convention in caring for wounded sick prisoners of war, Major General George E. Armstrong, Army Surgeon General, said recently that all of the POW's have been given the same food, medical care and sanitary conditions as those received by UN troops.

"To neglect or mistreat prisoners of war would reduce us to the ethical level of the enemy," General Armstrong said, "and in the end the prestige of our country and of the other United Nations would inevitably suffer in the eyes of history. The International Red Cross has sent representatives to our prisoner of war hospitals who have, without exception, praised enthusiastically what we are doing for such prisoners. This is in contrast to the enemy's refusal to permit representatives of the International Red Cross so much as to enter the North Korean area."

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

VOLUME 50 AUGUST, 1951 NUMBER 8

Prematurity

Prevention; Management of Delivery

By George Kamperman, M.D., F.A.C.S., and Donald Morgan, M.D., F.A.C.S.

Detroit, Michigan

THE PROBLEM of prematurity has interested the medical profession to a great extent of late, and many discussions have appeared in medical literature. The fact that prematurity has contributed so greatly to fetal mortality has induced many observers to analyze this problem in quest of some way of salvaging the large percentage of fetal life that in the past has been lost. Beck has estimated that in New York City 7.3 per cent of live births are born prematurely, and 18.4 per cent of these die within a month. The deaths from prematurity constitute almost 60 per cent of all fetal deaths under one month. At Harper Hospital during the years 1946-1950 there were 14,527 births, of which 1,181 were premature, but viable. This represents 8.28 per cent of all births. The mortality rate among these supposedly viable babies was 12.58 per cent. The mortality rate among all premature babies was 28.1 per cent. The problem, therefore, is to reduce the percentage of premature births, and to salvage some of the infants whose survival is doubtful.

There has been much discussion in recent medical literature as to what constitutes prematurity. Naturally, the term includes those infants born some time before the expected date of confinement, and yet having a possibility of survival. It is now fairly well agreed that the premature infant is one born before full term, and weighing 5.5 pounds or less. The size of the infant at birth greatly affects its ability to survive. Some infants, small at birth and yet born fairly near to full term, may thus be classed as premature. Douglas in England found that 71 per cent of babies considered premature by weight were also premature from the standpoint of length of the pregnancy. The double yardstick coincides in the largest number of cases. It has also been suggested that the term "premature" should be applied only to those infants born early and yet considered possible of survival, and those born non-viable should be classed as abortions. Even with this idea in mind classification is not always definite, or automatic, since these infants exhibit a great variation in the ability to survive. The smallest fetus reported to have survived weighed 420 grams, or .924 pounds. There are fifty-four cases on record in the literature of babies weighing less than 1,000 grams, or 2 pounds 3 ounces, that have survived. The survival of these small babies is unusual. It is common to set a minimum standard weight for survival at 1,500 grams, or 3 pounds 5 ounces. There is fairly general agreement that the lower limit of prematurity should be about six and three-quarter months of pregnancy, and 1,500 grams or 3 pounds 5 ounces in weight.

Some writers are not satisfied with considering only the length of pregnancy and the birth weight in the classification of prematurity. Dipple and his associates have suggested a more detailed method of appraisal of prematurity in which five factors are considered. These are, besides the two already discussed, (1) body length (crown-heel) of fetus, (2) occipitofrontal circumference and (3) chest circumference. From these calculations, they have developed an index of prognosis for the premature.

Prevention

We have quoted Beck as stating that prematurity occurs in about 7.3 per cent of all infants

Presented at the Fifth Annual Postgraduate Clinical Institute of the Michigan State Medical Society, Detroit, March 14, 1951.

born alive. We may ask the question as to what possibility there is of reducing this incidence. Obviously, this will depend considerably on the cause of the prematurity. Many writers speak of good prenatal care as being the hope of a lesser incidence of premature birth. Although this statement is frequently noted in medical literature, very few describe definitely as to how prenatal care can reduce the number of prematures. It is a statement that seemingly at times is made without much thought or consideration. On the other hand, some authors seem to assume that premature birth is unpreventable. Greenhill asserts that the only preventable causes of prematurity are toxemia, syphilis, some maternal medical diseases and mild placenta previa. We may then frankly ask, "Just what is the correct conclusion in this problem?"

One hundred unselected cases of prematurity at Harper Hospital during 1949 show etiology as follows:

Premature Rupture of Membranes	31%
Spontaneous Onset of Premature Labor Without Rupture of Membranes	28%
Multiple Pregnancy	15%
Pre-Eclampsia	10%
Abruptio Placenta	7%
Placenta Previa	5%
Syphilis	1%
Heart Disease	1%
Bicornate Uterus	1%
Erythroblastosis Fetalis	1%

There is rather a large group among premature births for which no cause for the early labor can be ascribed. In many cases, the premature labor is ushered in by a sudden rupture of the membranes. This may occur while the patient is asleep with no record of previous exertion or trauma (coitus) of any kind. In many such cases the patient is otherwise entirely normal, and no reason or cause of the premature rupture of membranes can be ascribed. Whether in these cases there is some unknown constitutional condition of the expectant mother or whether there has recently been some undisclosed trauma or exertion cannot be stated. Usually the patient can think of nothing in her recent history to account for this experience, and often the obstetrician is at a loss in arriving at a definite cause. The main factor in these cases is that the membranes have ruptured, and one must face the fact that premature labor is about to begin. In cases of this type it is difficult to see how anything could have been done to prevent premature labor. If any reduction of fetal mortality is to be obtained in such cases, it will not be in the field of prevention of premature labor, but rather in the management of delivery and in the subsequent care and management of the resulting premature infant. These cases represent about 31 per cent of all cases at Harper Hospital.

There are other types of cases where the onset of premature labor is not ushered in by a sudden rupture of the membranes, but there may be a spontaneous onset of labor pains which develop into real labor. These cases represent about 28 per cent of all cases at Harper Hospital.

We may ask, "What is there in prenatal care that may be considered a prophylaxis against such occurrences?"

Prenatal care includes a careful examination of the patient in early pregnancy, with careful noting at the examination, and watching all through the pregnancy for evidence of abnormality. Prenatal care also includes advice about, and admonishment of the patient, to report abnormalities such as bleeding, pain or symptoms suggesting toxemia. Many patients will have some mild type of bleeding during pregnancy and do not realize that it is abnormal, and continue in their daily activity and routine ignorant of, and unconcerned as to, its meaning. With the patient properly instructed she can be immediately treated by giving her the necessary rest and quiet, and many patients may recover from the threat of premature labor and continue through pregnancy normally. The advantage of prenatal care in such cases is that there has been an opportunity to inform and instruct the patient in advance. Besides this complete prenatal care makes possible the early detection of toxemias, early detection of syphilis. Patients' lives can be regulated, especially as to physical activities. Anemias can be corrected. Diet can be controlled and the patient can be put in the best possible health.

With patient otherwise normal, but threatening to miscarry or go into premature labor, one may wonder just what can be done to prevent the early labor. There can be no doubt that rest is of first importance in such patients. Nothing will substitute for rest and freedom from exertion. Various suggestions have been made and there is a school of obstetricians who have great faith in the efficacy of estrogens, progesterone, et cetera, to stop a threat of miscarriage or premature labor. These hormones have had a wide trial by this time and

we believe most obstetricians have been disappointed in the results obtained. Beck, in 1941, advised progesterone for threatened premature labor. In a recent personal communication, he seems skeptical, but speculates that perhaps the dosage given was often insufficient. We believe hormones are still widely used by the medical profession, in spite of lack of proof of their efficacy. We believe the use of thyroid extract in liberal dosage still offers some help.

Bartholomew and associates have analyzed a series of 1,570 consecutive cases in which no hormones of any kind were given. This report is significant in that the series analyzed is so large. The results reported in this series are almost identical with the reports by obstetricians who prescribe various hormones. In this series of Bartholomew, the cause of miscarriage and premature labor were predominantly fetal and only about 4 per cent of the patients could theoretically have been helped by hormone therapy. In general we would say that where the cause of the loss of the pregnancy is fetal, there can really be no prevention. In cases where the cause is maternal, possibilities for accomplishment are greater. And these are often the cases that go on to viability, even though premature labor ensues.

In general, a patient should be acquainted with the fact that pregnancy, although normal, may upset her entire physiology. Patients' lives should be so regulated as to accommodate themselves to the new burden that the pregnancy presents. The American patient often seems to assume that whatever mode of life she lived before pregnancy, this same mode of life can continue during pregnancy. Many patients can benefit during pregnancy by reduced activities. More rest is required, and an hour of rest and relaxation during the day can be very beneficial. Many activities indulged in before pregnancy may have to be abandoned or reduced. This applies especially to physical activities. All sports such as tennis, horseback riding, bowling, et cetera, even though enjoyed and well borne before pregnancy, should be eliminated during pregnancy. In this motor age, pregnant patients are traveling all over the country as they did before the pregnancy began. Despite the report by Diddle that patients who motored excessively during pregnancy during the last war had no increased loss of pregnancy, we do not believe that excessive and long distance motor traveling is conducive to the normal continuation of pregnancy. While we do not believe the expectant mother should be assigned to boredom during the pregnancy, it would seem she should find plenty of diversion that would not be a great physical strain. Violent exercise should always be prohibited.

An exhaustive study of prematurity has recently been made in England. In a very large series, Douglas finds that the incidence of prematurity is lowest with adequate prenatal care, and highest with inadequate supervision. Also, he finds a definite relationship between prematurity and "paid" work. Lowest incidence of premature birth was among those leaving their work by four months of pregnancy. And it was also noted that mothers of premature babies worked significantly late in pregnancy. Douglas concludes that there is consistent evidence that rest during the last months of pregnancy lowers the incidence of premature birth. Besides these conclusions about those who "work for pay," he finds it equally true that the expectant mother who does heavy work in her own home has more premature labors than those who are able to have household help the last trimester of pregnancy. It would seem then that an economic factor enters into the frequency of premature labor. This study by Douglas suggests that some restriction of the expectant mother's activities may be helpful in reducing the incidence of premature labor. Possibly the 59 per cent of patients that begin premature labor without known cause may fall in this category.

Abstinence from sexual relations is advisable during the last trimester of pregnancy, especially in those patients who had bleeding during early pregnancy, and also in those who have had previous premature births.

Prenatal care should include a careful regulation of the diet, as so many patients have improper eating habits. It is believed by some that nutritional defects may be a factor in causing premature labor. Anemias should be corrected early in pregnancy. In general, everything should be done to put the patient in as good physical condition as possible.

There are certain complications and conditions in pregnancy that may result in premature labor. Among these are toxemias, multiple pregnancy, cardiac disease, hemorrhage, and syphilis.

Hypertensive toxemia of pregnancy is often responsible for the premature interruption of pregnancy. It has long been known that with hypertensive disease, miscarriage or premature labor is

common. While we have no real way of preventing these hypertensive toxemias, we can have some control over them. Rest in bed is the most important factor in carrying the pregnancies to viability. While it is possible to carry such a pregnancy too far so that the mother may retain permanent hypertensive damage, it is also true that with bed rest, careful dieting and sedation the development of the toxemia can be greatly slowed down. Usually there is no great urgency to induce labor early, and in the interest of the fetus the induction of labor can often be delayed until the fetus is well viable. There is always a likelihood that spontaneous premature labor may begin in spite of bed rest. While the mother's welfare must be guarded, the fetus also has a right to consideration. No problem requires greater judgment than to make the proper decision in these cases.

With pre-eclampsia, the problem may be more difficult. Fortunately, even in this type of toxemia there is often a prolonged prodromal period. If this is recognized, then with proper rest, diet and sedation, the progress of the toxemia can often be slowed down so that the fetus can be carried to viability. It requires a great deal of experienced judgment to have the fortitude to be conservative in these cases. Too often the physician is fearful and induces labor earlier than necessary. Here the advice of a seasoned practictioner may be helpful in giving moral support to the less experienced physician.

Occasionally, one sees a very fulminating toxemia in which no procrastination would be wise. Here it is not so much a question as to whether the pregnancy should be interrupted, but rather as to how it should be done. Many factors enter into this problem, and we are discussing only those cases dealing with prematurity. The main requirement is that no drug be used that might depress the respiratory efforts of the fetus. Cesarean section theoretically should give the fetus the best chance to survive, but unfortunately the statistics on cesarean section do not substantiate this. This will be further discussed when we consider the management of delivery. These various types of toxemia represent about 10 per cent of all premature births at Harper Hospital.

Multiple pregnancy is a large factor in the incidence of prematurity. Unfortunately, we know of no prevention for multiple pregnancy. It has long been known that multiple pregnancies often end prematurely. Here again the avoidance of analgesic drugs and general anesthetics is important, and the birth of the first baby should be made safer by an adequate episiotomy. An important consideration here is the method of delivery of the second baby. If possible, the second birth should be allowed to be spontaneous—at least if the second fetus presents by vertex, it should not be delivered by version and extraction. Breech extraction, and version and extraction are especially hazardous for the premature. For this reason the delivery of the second fetus should not be hurried. Spontaneous breech delivery is more hazardous than vertex delivery, but breech extraction and version are still greater hazards. Prematurity associated with multiple pregnancy represent 15 per cent of cases at Harper Hospital.

Cardiac disease at times is also responsible for the premature birth of the baby. This may be because of the disease itself, or because often attempts are made to induce labor prematurely. The premature infant is particularly susceptible to the effect of cardiac decompensation in the mother, while the more mature fetus is relatively unaffected. Carr and Hamilton find that cardiac decompensation has a low incidence up to the sixth month, then rises rapidly during the seventh and eighth months and after that the frequency of decompensation is again lessened. For this reason, if the mother's condition warrants, it may be wise from the fetal standpoint to avoid induction of labor until the last month. Here again we are dealing with great hazards, and the advice of a competent cardiologist should always be obtained. The cardiologist can advise us how great a strain the mother's heart can weather. Then it is still the obstetrician's responsibility to decide which method of delivery will be the least strain on the mother's heart. Fortunately cardiac patients usually have easy labors. Here again the decision may have grave implications. Cardiac patients represent only one per cent of prematurities at Harper Hospital.

In general, it is well to wait for spontaneous labor to start, if the maternal condition warrants. Patients who have frequent episodes of decompensation are best delivered during the period of compensation. If conditions for induction are ripe, labor can be induced. If induction promises to be a slow procedure, then cesarean section under local anesthesia without preliminary analgesia may be the safest for both mother and baby. As soon

as the baby is delivered, the mother can be given an adequate dose of morphine.

Hemorrhage during pregnancy and labor are often associated with prematurity. The hemorrhage itself may be the cause of premature labor, but equally often the treatment of the hemorrhage is the cause of the premature delivery of the infant. The high mortality among premature infants that occur with this complication may not be due only to the prematurity itself, but also to the complication causing the premature labor. Since toxemias of pregnancy are a great factor associated with abruptio placenta, any benefit that prenatal care can give in preventing or controlling certain toxemias of pregnancy could be looked on as something favorable toward preventing such hemorrhagic states. Since abruptio placenta is often a direct cause of onset of labor, not a great deal of prevention can be exercised after the abruptio occurs.

The situation is somewhat different in bleeding from placenta previa. The occurrence of bleeding here does not necessarily mean that pregnancy will terminate at once. The maternal mortality in placenta previa has been greatly reduced by the judicious choice of cesarean section to terminate pregnancy. This operation has become so safe and the risk of vaginal delivery in placenta previa may be so great, that the practice has become to terminate pregnancy by cesarean section almost as soon as the diagnosis is made. This treatment is based on the dictum that there is no safe expectant treatment for placenta previa. The rigid adherence to this dictum has led to the premature delivery of many infants. One must make important decisions here and although maternal life must not be sacrificed, it is doubtless true that in many cases of milder placenta previa termination of pregnancy at a somewhat later date to insure greater viability of the infant could be accomplished without undue risk to the expectant mother. In these cases complete bed rest in hospital would insure the mother's safety while giving the fetus an opportunity to develop into a more viable infant. Great judgment is required here, but experience has shown that it is possible in some cases. Experience is the best guide here, and consultation may bolster up the physician's morale and give him fortitude to delay delivery. Many pregnancies have been terminated too early just because of fear. It has been shown that a careful application of this idea may save the life of some infants. Cases of prematurity associated with hemorrhage represent 12 per cent of prematures at Harper Hospital.

As intimated before, one is playing with fire when treating cases of placenta previa conservatively. The younger physician should have consultation with the older experienced obstetrician.

Syphilis is recognized as a factor in premature labor. Fortunately, this incidence is low. With proper early examination of the patient and early Wasserman tests, this disease may be discovered early. With intensive treatment of the mother beginning early in pregnancy the future of the infant can be assured. Not only premature birth can thus be avoided but the baby can be born in a healthy state. Syphilis should soon cease to be a factor in premature birth. During 1949, syphilis accounted for only 1 per cent of premature births at Harper Hospital.

Management of Premature Delivery

Obstetricians have long known that normal birth in itself may constitute a hazard. Some babies die from no other cause than the hazard of birth. A labor too long, or a labor too rapid, may result in fetal mortality or morbidity. And there is no doubt that the process of birth of a frail, fragile underweight baby may be a great hazard. For this reason, the delivery of a premature baby requires special management, and great care must be exercised not only to reduce natural hazards, but also care must be taken not to add to the baby's hazards at birth.

It has become the practice in recent years to administer certain drugs to relieve pain during labor. This is very commendable from the humane standpoint. The young intern is almost getting the impression that patients cannot be delivered without this relief and seems to think that pain relief is a necessity. While the judicious use of these drugs in full term labor seems to be quite safe for the baby, obstetricians are almost unanimous in condemning the use of these drugs in premature labor. There is no doubt that these drugs have a depressing effect on the respiratory centers. Since the ability to breathe well is one problem of the premature, it would seem unwise to aggravate the problem by use of depressing drugs. Equally important is the effect of general anesthetics. Premature labors should be conducted without the use of analgesic drugs and general anesthetics. Patients have become so accustomed

to have pain relief during labor that it requires a great deal of tact and moral support on the part of the obstetrician to carry her through labor. It means more personal attention on the part of the physician. For the terminations of delivery, local or regional anesthesia can be used with great effectiveness. This same principle holds true for premature infants delivered by cesarean section. The operation should be performed under local anesthesia (or spinal) without preliminary analgesia.

Much has been written about cerebral damage in the premature. The fetal brain is very soft and fragile. Statistics have been published to show that the safest termination of labor is accomplished through removing head pressure by performing episiotomy, using a local anesthetic for this and carefully lifting the head out of the vagina by using obstetrical forceps or by fundus pressure. There was a time when the obstetrical forceps was used only for the large head. Now it is being recommended for the premature head. Also the same is true of episiotomy. The aim is to deliver the baby's head with as little pressure as possible. Statistics show definitely that gentle forceps delivery preceded by episiotomy gives the greatest fetal salvage. Particularly significant is the fact that breech delivery in the premature (a common occurrence) is more hazardous than a vertex delivery. The delivery should result by normal pressure of the uterus from above, rather than by traction on the fetal legs. This should also be kept in mind when in twin pregnancy the second baby presents by vertex. The common practice to deliver the second fetus by version and extraction is especially hazardous for the fetus. A conservative period of waiting is safer than hurried delivery. Following the same principle in delivering a premature by cesarean section, the uterine incision should be sufficiently large so as to allow easy extraction and the baby should not be delivered by traction on the legs, but the head should be delivered first by the most gentle possible manipulations.

During premature labor and before cesarean section on a patient before term, it is wise to give adequate doses of vitamin K to the mother, preferably for several days, if possible.

After delivery of a premature infant, it is imperative that fetal body temperature should be well maintained. Beck recommends that such a baby be placed in a basin of warm water and kept there until the cord stops beating. The cord should not be clamped or tied until the pulsation ceases, and before tying the cord the blood in the cord should be "milked" from the placenta towards the fetus.

After the birth of the premature infant, it should be placed in a warmed incubator and given oxygen as indicated.

Conclusions

1. Incidence of prematurity in New York City is 7.3 per cent. Of these, 18.4 per cent die within twenty-four hours.

2. At Harper Hospital, 8.28 per cent of all viable births were premature. The mortality among these was 12.5 per cent.

3. Prematurity is based on duration of pregnancy and birth weight.

4. Babies born between six and one-half months and eight and one-half months of pregnancy are premature.

5. Babies weighing 5.5 pounds or less are considered premature. Lower limit of prematurity is three pounds five ounces.

6. Many cases of premature delivery are due to fetal causes for which no prevention is known.

7. In many cases, premature labor is ushered in by spontaneous rupture of membranes, and no prevention can be instituted—31 per cent at Harper Hospital.

8. Many patients go into premature labor without rupture of membrane—28 per cent at Harper Hospital.

9. Most obstetricians are skeptical about the efficacy of estrogens and progesterone to prevent premature labor.

10. Patients receiving adequate prenatal care are less likely to have premature labor.

11. Diminished physical activity late in pregnancy may lessen incidence of premature delivery.

12. There is less premature labor among patients who do not "work for pay" late in pregnancy and less prematurity if patients have domestic help the last trimester of pregnancy.

13. Prenatal care is beneficial in that then patients are forewarned of possible complications. Toxemias can be detected early. Patient's activities can be regulated, her nutritional needs can be balanced, anemia can be corrected, and patient put in best possible physical condition.

14. Hypertensive toxemia can be controlled somewhat by rest, diet, and sedation so that induction of labor can often be delayed until the fetus is viable. The various toxemias cause 10 per cent of the prematures at Harper Hospital.

15. Pre-eclampsia, if not fulminating, can often be controlled so as to make delay in induction of labor permissible.

16. Fulminating toxemia may require radical treatment. For this cesarean section may be necessary. The operation should be performed under local anesthesia without preliminary analgesia.

17. If cesarean section is necessary during prematurity, the uterine incision should be large and the fetus delivered gently by vertex.

18. In vaginal delivery the best fetal salvage is obtained by a gentle forceps delivery after an episiotomy has been performed.

19. Breech delivery of the premature is more hazardous than vertex delivery. Spontaneous delivery of breech is more hazardous than vertex delivery. Version and extraction are extremely hazardous. In twin pregnancy, the second fetus should be allowed to be born spontaneously. Gentleness in manipulations is fundamental.

20. Analgesic drugs—and general anesthesia—should not be used in premature delivery. Anesthesia should be local or regional.

21. In cardiac disease there is often a period late in pregnancy when compensation is best. It is preferable that labor should begin spontaneously. In certain cases, where periods of compensation are short, labor may be induced or cesarean section may be performed. Heart disease causes 1 per cent of premature births at Harper Hospital.

22. There is very little preventability in cases of abruptio placenta except in slowing down cases of toxemia. Seven per cent of premature births at Harper Hospital are associated with abruptio placenta.

23. In placenta previa, except in very severe cases, delivery can often be delayed until fetus is viable. Five per cent of premature births at Harper Hospital were associated with placenta previa.

24. Syphilis is now a rare cause of prematurity. Early recognition and treatment of the disease may prevent prematurity and assure a healthy child. Syphilis accounts for 1 per cent of premature births at Harper Hospital.

25. Vitamin K should be given as early as possible during premature labor.

26. After birth, tying of the umbilical cord should be delayed until pulsation ceases. Before tying the cord, blood should be "milked" from the placenta towards the fetus.

27. Immediately after birth, the premature baby should be protected from loss of body heat by placement in a warm bath or warmed blankets prepared in advance.

28. Violent methods of resuscitation should be avoided. Gentleness in all handling of the baby is fundamental.

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MSMS

MEDICAL COSTS LAG

Labor Department's Bureau of Labor Statistics reports the cost of medical care rose only 2.3 per cent between last June, prior to Korean war, and December, while living costs were increasing 5.1 per cent. BLS surveys medical care every three months; its March report is not yet available. Other increases: general practitioners' fees, 1.1 per cent; surgeons' and specialists' fees, 1.2 per cent; drugs, 2.5 per cent, and hospital rates, 4.9 per cent. The survey is based on studies in 18 major U. S. cities, and BLS attempts to weigh average prices so as to reflect national average.—*Bulletin, Berrien C. M. S.*, June, 1951.

* * *

WHAT ARE YOU WORTH?

One of Ripley's cartoons pictures a bar of iron worth $5. That same bar of iron made into horseshoes would be worth $12. Made into needles, its value would be over $3,000 and if turned into fine watch springs it would be worth in excess of $250,000.

The same is true of any material. Its value is not determined by what is in it but by what service that material performs. What are you worth?

Management of the Premature Infant

By Clement A. Smith, M.D.
Boston, Massachusetts

THE RECENT and much-publicized case of the kidnapped premature infant in New York City offers a useful text for today's discussion. You will recall that the infant was found in good condition some three weeks after its abduction by an ignorant but impulsive young woman who maintained it without benefit of incubator, pediatrician, nurse, chemotherapy, oxygen tent, and all the other adjuncts which we tend to think are absolutely essential for success with these patients. Not only did the infant survive, but it gained a proper amount of weight. Moreover, its birth weight had only been some two and a half pounds, and its age was only about ten days when it was first faced with these shockingly unorthodox circumstances. There are at least three morals to this little story.

The first has to do with the factor of age. Premature infants who survive for a week have amply demonstrated their ability to live as extra-uterine organisms, and deaths beyond that age are usually preventable deaths. The serious obstetric and pediatric problems, as we shall show in a minute, are almost entirely those of the first few days.

Secondly, if the infant had died, its abductress would have committed a crime in her own eyes much more serious than that of the abduction itself, and an utterly pointless one. It is said that she had lost twin infants of her own. Therefore, she lavished on that small infant all the concentrated maternity which was frustrated by her own unsuccessful pregnancy. And what does that mean but that she furnished the essence of good nursing care?

Finally, the baby obviously had to be concealed, and the essence of concealment is that no one will come near the object hidden. What does that mean, except freedom from the chance of infection?

In the brief time we have available, let us look at these three factors: the post-natal adjustment period, the importance of nursing care, and the protection against infection. We may well concentrate on these since I believe that so far as survival is concerned they far outweigh all other matters such as temperature control, drugs, foods, and vitamins.

It is a most interesting fact that the human fetus of considerably less than forty weeks' gestation can be adjusted with such relative success to extra-uterine life. I recently analyzed our 377 neonatal deaths at the Lying-in Hospital during a five-year period,[7] and discovered that the premature and full-term infant fatalities were distributed with a similar frequency during the immediate post-natal period. About 60 per cent of the losses in both groups occurred within the first twenty-four hours; less than 10 per cent in both groups occurred after the fifth day. Although of the 377 deaths almost exactly two-thirds were among prematures—a measure of the importance of today's discussion—the fact remains that these infants found the same diminishing degrees of difficulty on the same days of post-natal life as did their full-term counterparts.

This suggests the great importance of safe delivery, which Dr. Kamperman's paper, just presented by Dr. Morgan, has so competently covered. We think delivery should be in the most normal way possible, which means head first, through the pelvis, with a minimum of drugs or anesthetics. My obstetrical colleagues prefer either no medication or anesthesia at all, or some form of local or so-called conduction anesthesia—spinal or caudal. We would not go so far as Masters and Ross whose interesting paper[2] suggests that conduction anesthesia is preferable to no anesthesia, though their statistics are striking.

Once a proper delivery has been performed, the infant must then make all the numerous physiological adjustments entailed by assumption of an independent life in the air instead of a dependent existence under water. Our philosophy regarding that adjustment has increasingly been based on the conception that the infant can do a better job for himself than we can do for him, and that our role as doctors and nurses is to make the circumstances as favorable as possible and leave the rest to him.

Consequently, we have tried to get him promptly into an atmosphere of increased oxygen content with relatively steady temperature and humidity,

Presented at the Fifth Annual Session of the Michigan State Medical Society Postgraduate Clinical Institute, Detroit, March 14, 1951.

From the Department of Pediatrics, Harvard Medical School, and the Boston Lying-in and Infants' Hospitals, Boston.

and the least possible risk of contamination by infection. We have then left him in that environment, watched over constantly by a skilled nurse, for a period of at least two days—and sometimes more—before any attempts at feeding are begun. The smaller he is the longer we have tended to delay his feeding.

The reasoning behind this delay in giving any food or fluid has been as follows:

1. Each feeding, however carefully administered, entails the risk of aspiration, either directly or as a result of regurgitation.

2. So far as we have observed, premature infants do not die from starvation or dehydration (in the absence of infection or other primary factors) during the adjustment period.

3. The body at premature birth contains more water—and more sodium-containing or extracellular water than at full-term birth. The more premature the infant, the more is this the case, so that the extremely premature infant is rather like an adult who has just been given a large salt-solution clysis.

When the infant is first fed, at 48 hours or more after birth, we begin with small amounts of glucose solution by gavage, and replace it with breast milk if possible, or by a formula, as is shown below:

FEEDING OF PREMATURE INFANTS

Feeding by gavage (except in larger infants obviously able to suck and swallow), begun forty-eight or more hours after birth.

A—Two to three pound infants, fed every 2 or 3 hours;

B—Three to five pound infants, fed every 4 hours.

A—Begin with 10% glucose in water:

1 dram first feeding
2 drams second feeding
3 drams third feeding
4 drams fourth feeding

Breast milk 1 dram plus 10% G. sol'n.
3 drams fifth feeding

Breast milk 2 drams plus 10% G. sol'n.
2 drams sixth feeding

Breast milk 3 drams plus 10% G. sol'n.
1 dram seventh feeding

Breast milk 4 drams eighth feeding

B—Same program usually using twice the quantities. Maximum about 65 calories/lb./day by 14th day.

If breast milk is not available the following formula is recommended by Gordon, Levine, and McNamara:[3]

½ skim milk powder sold as	
Alacta®	1 tbsp./lb.
Added carbohydrate	5 G. or cc./lb.
Water to	2¼ oz./lb.

(This furnishes 55 calories/lb.)

Into the argument over human milk versus artificial formula as foods, I cannot go in the limited time available. If I did go into it, my conclusion would be that we use human milk by preference but that others, whose scientific backgrounds we respect, prefer artificial formulae. The whole object of feeding during the critical first week is *not* to make the baby gain weight but to keep him alive and to avoid unnecessary overloading during a most crucial period. After that is over, he will gain weight on almost any reasonable feeding schedule provided it is administered with mechanical skill.

A second aspect of adjustment for which we must provide proper circumstances is that concerned with respiration. We have in the past hurried our prematurely-born infants immediately from their delivery into an incubator containing an atmosphere of 40-50 per cent oxygen. The increased oxygen has, I think, provided a valuable environmental factor for these infants, and we shall continue its use. However, we have been interested in the fact that more than half of our prematurely-born infants who come to autopsy —from whatever reason—after living for one hour or more after birth, show so-called hyaline membranes in their lungs.[4] These formations we consider to be a result of the progressively deeper inhalation of amniotic fluid contained at birth in the upper air passages. Perhaps by too great haste to get the baby into warmth and oxygen, we have neglected an opportunity for simple drainage and pharyngeal suction of material never again so easily withdrawn—and potentially an increasing handicap to air exchange as respiration carries it downward.

Our position as regards temperature control as another adjustment has been that a steady temperature, even if slightly below the adult

normal, is preferable to one swinging widely about 98.6 degrees. Steady temperature can be achieved by the use of any number of different incubators, some of which provide the additional advantage of using germ-free outdoor air drawn in through a hose and then suitably conditioned. In such incubators the baby breathes his own individually pure air supply and not that of the room in which his incubator is placed.

Skilled nursing is necessary during the adjustment period, but does not become unnecessary once the first week is past. As to the crucial importance of nursing care, I can only ask you what you would do if you were the parent of a premature and were offered the choice of care either by an inexperienced doctor and an expert nurse, or by an inexperienced nurse and an expert doctor. It would not take you long to decide upon the former alternative. Certainly that would be my choice. It costs time and money to train nurses to care for premature infants but it is basically the most economical expenditure that can be made.

As to the importance of preventing infections, my colleague, Dr. Stuart Clifford, has recently reported a striking example,[5] the substance of which was that deaths among prematurely-born infants admitted from outside sources to a children's hospital nursery tended to occur (not infrequently) at ages of more than seven days, whereas such late deaths did not occur among premature infants cared for in the maternity hospital of their birth. Measures were taken to control infection among the prematures admitted to the children's hospital nursery, on the assumption that practically all of them could be considered as infected before admission. A regime of incubators with individual air supply was instituted, and, for almost every infant, a program of chemotherapy for two weeks after admission, with subcutaneous penicillin and sulfadiazine. Presumably as a result of those changes, the mortality in that premature nursery promptly declined by some 40 per cent, and deaths after the first week were no longer seen. Obviously, anyone caring for prematures brought to him from uncontrolled sources, must regard every one of them as potentially infected, and design the management of such infants in patterns not necessary for premature babies born to uninfected mothers and cared for in the hospital of their birth.

In these ways we have tried to give our infants as good care as that provided by the fiercely maternal but otherwise untrained abductress of the contraband and therefore concealed premature baby. To a certain extent, we have succeeded, so that, given all the advantages of birth conducted by expert obstetricians, and care thereafter by expert nurses in the same hospital, we have a mortality rate of slightly under 15 per cent for all infants under 2500 grams or five and one half pounds, birth weight. But we have another problem. Among the smaller infants who survive, progressive blindness from retrolental fibroplasia occurs in a varying but disconcertingly high percentage.

This disturbance of vision has developed in some years among as many as 20 per cent of the Lying-in Hospital babies weighing less than 4 pounds at birth. For the last two years, it affected about 7% of such infants. It occurs with great rarity in larger, or less premature, infants. Seemingly, if not a "new" disease, it became much more common about 12 years ago.

The earlier stages of its development are visible by the opthalmoscope some 30 to 60 days after birth. These—interestingly enough—are often subject to apparently spontaneous reversal to a normal retina and normal vision so that their discovery by no means indicates that the more severe and permanent changes will follow. You are fortunate in having a pioneer student of this disturbance, Dr. V. Everett Kinsey, recently brought to Detroit in connection with the new Kresge Eye Institute. The work of Dr. Kinsey and his former associates at the Massachusetts Eye and Ear Infirmary[6,7] with our infants has kept us out of many pitfalls and has shown us how many factors in the management of premature infants do *not* cause retrolental fibroplasia. Interestingly enough, our changes in routines aimed at evaluating various vitamins as potential factors have not implicated any of these but have shown us that the vitamin intake of the premature is a less crucial factor in his growth than we once thought. Nevertheless, ascorbic acid and vitamin D supplements are necessary for any infants, and for prematures in particular.

What *does* cause retrolental fibroplasia we do not know, nor do we know of anything which definitely arrests the process or cures it once it has developed. Certainly anyone who has any responsibility for even a single premature infant of less than 4 pounds birth weight must interest himself

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The Emotionally Healthy Child

By Benjamin B. Stamell, M.D.
Detroit, Michigan

SO MUCH has been written in the past few years concerning the emotionally disturbed child or the child with a problem, that a consideration of the ingredients that go into making an emotionally healthy child is in order. Much anxiety has been aroused in otherwise fairly well adjusted parents by the admonishments of individuals, both lay and medical, who are interested in developing mental health programs in their respective communities. While this is not the intent of their program, guilt feelings on the part of parents are inevitable. It is, therefore, the purpose of this paper to provide a discussion of the essential factors that help toward the normal social adjustment of the developing child.

What, then, is necessary to provide for the development of well adjusted, reasonably efficient and happy children? What are the personality traits that should be cultivated in children? What type of behavior should be expected in order that they may compete in this society?

If there are going to be world wars and social upheavals every decade, perhaps like ancient Sparta, emphasis should be on cultivating warlike qualities. If the future is to be one of economic and cultural chaos and atomic war, perhaps training for "talon and fang" existence would be proper. If, however, children are to live in a humane, civilized, and peaceful world, and find happiness in life; if they are to experience satisfying love relationships; if they are to develop their individual capacities to withstand ordinary competition and become self supporting, and yet at the same time keep their actions within the bounds of social acceptability, then there are certain emotional needs which must be satisfied in both home and school environments.

Most behavior problems in children are due to failure to satisfy these emotional needs, and child guidance treatment is largely concerned with attempts to find ways in which these normal emotional needs can best be satisfied. What, then, are these fundamental needs, and how can they best be fulfilled?

Every infant needs the affection of both its parents. The baby definitely needs the loving care of the mother, and a sense that father stands with her in providing emotional support. The comforting bodily contacts of the nursing infant with the mother, her prompt measures to satisfy his every need and want, and then later the tender solicitude of both parents help give the child a feeling of security and well being. At all stages of development, the child needs to feel that he is wanted not so much because of his good behavior, but because he is himself. The emotional tie which is established with his parents in childhood greatly determines the individual's relationship with people in later life. It is from experiencing sympathy, understanding, patience, fairness, and encouragement of a wise parental love that the child is given a foundation for the social attitudes and ideals most cherished in a civilized world. When the parent-child emotional relationship is sound and wholesome, mistakes in the child's management are not likely to result in any serious or permanent harm to him.

It may be said that the first step in the healthy emotional development of the child is the capacity to sense the love of his parents, and to be aware that they will be available in time of need. During this early period, the child is completely dependent upon them for his safety and comfort. He needs them in order to have his physical wants met. If his dependency upon them is satisfactorily fulfilled, he will be comfortable and friendly; if it is not adequately met, he becomes tense and anxious.

Difficult behavior problems frequently result when the child feels that he is not wanted or loved. The child who is pushed away or shoved aside is extremely unhappy. He is likely to resort to a bizarre attention getting behavior, and to become motivated by resentment and spitefulness. Feelings of jealousy and hate may develop towards those whom he feels are depriving him of love. Prolonged deprivation of love may so warp his development that he becomes handicapped in forming normal emotional attachments in later life, and he may never become motivated by feelings of kindness. He may carry his feelings of hate into his social and school life, disliking all teachers and constantly battling with the other children.

Parental affection is the foundation upon which the child's feeling of security in life is built. Adults, of course, know that security itself is tran-

sient, and that the one certain thing about life is its uncertainty. The child, however, has neither the intellectual nor the emotional maturity to face insecurity philosophically.

A child needs assurance of protection from physical want and injury, but even more he must know that his home is stable. He needs confidence in his parents. He needs to know that they will not make demands on him which he cannot meet. He should feel that they want him, and love him whatever his faults and shortcomings. His home must be a dependable refuge where he can return after his excursions into the outside world. There he can find understanding and counsel, and above all, emotional support, so that he can go forth again confidently to look for further experiences.

The profoundly insecure child may became excessively shy, timid, withdrawn, and seclusive. He may display a variety of useless and puzzling fears. He may become preoccupied with disturbed body functions and resort to invalidism. He is likely to become tense, restless, and subject to habit spasms. He may strike out blindly in self-defense and become excessively aggressive and hostile. Fear and chronic anxiety are prominent factors in a great number of children's behavior and personality problems.

Conversely, the child who feels reasonably secure faces his problems with straightforwardness and self-confidence. He is curious. He displays a desire for new experiences, a striving for self-enrichment, and a pleasure in accomplishment. To him the world is intriguing and challenging. He faces adult life with confidence in his own future.

A goal for parental management, then, is for each child to become an adult that can live happily and effectively in a competitive world. To accomplish this, the child must be nurtured and protected until he is capable of handling situations for himself. Protection, of course, can be overdone or unduly prolonged, and the overly protected child may reach adult life unprepared to face the uncertainties and hazards which all adults must accept. A carefully chosen, properly timed, and appropriately increasing amount of insecurity may, therefore, be character building. The value of such insecurity, however, depends on proper dosage; too much may defeat the purpose and result in unhappiness, and possible breakdown, and leave the child to enter adult life without confidence and faith in himself.

It should be pointed out that the young child has no concept of forces other than his own wishes. Disapproval of these wishes by the parents has the elements of real danger for him. To the youngster, anger and affection cannot occupy the same space at the same time. He regards as a threat anything or anyone not complying with his wishes. He therefore feels the same is true of his parents. It is only later in development that the child matures to the point where he can comprehend the tolerance and understanding of those who love him.

Another need common to all children is the need for acceptance of their own individuality. It is quite natural for parents to want to create a child of whom they can be proud, and thus they apply their own adult standards in training the child. To the extent that a child's personality is the product of his environment and is not limited by his biological equipment, parents can expect to be partially successful in their molding. However, this process must be one in which the child's maturing interests and desires are respected. Too much pressure very frequently results in rebellion and unhappiness.

For example: If parents are ambitious that their boy become a violinist, a perfectly worthy goal, they can provide him with a musical background, give him a violin on which to practice, and secure good teachers for him. They cannot, however, be certain that such a program will make another Heifitz of him. The boy will become outstanding only if he has sufficient musical talent, and has sufficient interest to work at his music. But even if he does not have the potentialities of becoming a world famous musician, perhaps he can become an accomplished player capable of earning his living with his music, or of delighting his friends. He may perhaps only learn to play well enough to earn the approval of his girl friend. But is this not also a worthwhile accomplishment?

Frequently, parents try to force their children into roles for which they are not fitted. They try to keep their growing children infantile or to make little men out of little boys, or Little Lord Fauntleroys out of Hopalong Cassidys, or to make girls out of boys. Some parents feel quite insecure in their knowledge of children. Every deviation of their child from a preconceived idea of the average activity of a youngster makes them feel guilty. They then generally try to hurry growth and development. Thus, they make an emotional issue of every behavior problem, and the home becomes

marked by constant tension. The child is unhappy, and the parents feel completely frustrated.

Extreme situations of this type are usually due to poor emotional adjustment on the part of the parents. Not infrequently, the parents have not solved their own problems of growth and development, and are trying to compensate for their own dissatisfactions in the accomplishments of their children. The father, regretting his own lack of education or professional training, may attempt to force his boy to go to an institution of higher learning or into professional training despite the boy's limited intellectual capacity or lack of interest. The mother, regretting her own adolescent mistakes, may be filled with apprehension at the maturing interests of her adolescent girl. The parents may experience reactivation of their own childhood anxieties when they witness behavior for which they themselves were punished as children.

Proper credit for adaptability is rarely given to children by their parents. The responsibility the growing boy or girl assumes is generally taken for granted. If the demands made of them became excessive, they become, if not problem children, then at least children with problems. They react vigorously to unreasonable demands by becoming irritable, defiant, and tearful. There then develops antagonisms and hostilities which could have well been avoided by understanding and patience.

When there is marital discord in the home, the parent who is starved for affection may obtain vicarious satisfaction in keeping the child infantile and dependent. How much better it is for children when parents accept them as they really are, correctly evaluate their assets and limitations, devise opportunities for them to make the most of their assets, allow them to develop at their own rate, and let them participate as well as they are able in the plans for their own activities and their own futures. When a child learns by day-to-day contact with his parents, however, that adults are accepting friendly persons, even though at times they impose some restrictions, he will turn to new contacts with other adults with a confidence that could only be the result of his earlier experiences. If a child is convinced that his parents are friendly and reliable people, then he himself inevitably adopts their attitudes.

Every child has a need for a sense of his own worth. Anything which tends to make him feel unworthy or inferior is likely to evoke promptly some kind of defensive reaction. If the child is unsure of himself as a person in his own right, he may withdraw from social relationships in order to maintain his own sense of security by avoiding the hazards of group participation. He may, however, on the other hand remain in a group and attempt to assert his right to protect himself from the others. In short, this reaction may be productive of the "bully." This type of child is quite frequently the result of domineering parents who have not given the child an opportunity of developing confidence in his own capacities.

The child needs self-respect and self-esteem. He strives actively for these feelings. Confidence is built up within the child by two types of experience: first, the satisfaction which comes from achievement, and second, the pleasure which results from the recognition by others of these achievements.

The developing child discovers and tests his powers largely through play. It is serious business for him. In tasting, touching, grabbing, tearing, pulling, banging, and throwing, the infant learns the nature of the material world and what he can do with it. In falling, running, jumping, climbing, and handling objects, the growing infant develops his physical skills. Certainly he needs a space in the home where he can experiment to his heart's content, and a place out of doors where he can run, tumble, and shove. Each new accomplishment brings him an intense satisfaction and whets his appetite for a task a little harder.

In early childhood, a period which is normally characterized by great physical activity, marked curiosity, and tendency to get into everything, some children find themselves constantly frustrated. They are completely surrounded by "don'ts." It is, "don't do this," "don't do that," "don't touch this," "don't play with that," "don't spill," "don't mess," and "don't be noisy." When the parent's language becomes just as limited as the child's, the exasperated child then has no choice but to rebel. Almost as handicapping is the tendency of some mothers to anticipate and thwart every spontaneous movement and to overdirect the child's activities. Healthy emotional growth can only be fostered during this period if the parents can resist the temptation of trying to make a perfect child in ten easy lessons.

Children must have the opportunity for activity at their own level of development and interest. In

play, in school, and later in social life, they need some leeway for experimentation in order that they may discover what things they can do best, and what kind of activities give them the most satisfaction. One boy may find that he enjoys football or some other kind of physical activity. Another may find that he can best satisfy his needs for accomplishment by devoting his energies to a school subject or in reading. One girl may find her greatest pleasure in cooking and serving dinner for the family. Another may discover that she has talent in music and painting. Thus foundations are laid for a decision as to a career or occupation.

Like adults, children want their accomplishments to be recognized. It is quite natural for them to bid for attention. The infant goes "pat-a-cake" frequently at the slightest excuse because of the joyous response it gets from the parents. The nursery school child will stand on his head, tell fantastic stories, or do almost anything to get applause. The high school boy will expend his last ounce of energy on the athletic field to earn the plaudits of the crowd. Children earnestly want the approval of their parents, teachers, and playmates. Recognition and approval for desirable behavior by parents and teachers have a great constructive value in child training.

The attitude which parents, teachers, and other children display toward the child's efforts is the chief means by which he can evaluate his own capacity and ability. It also determines the degree of satisfaction which he experiences in adopting more adult types of behavior. When parents display interest in the child's activities and pleasure in his accomplishments, he is not likely to become bored with life. Even routine tasks which he would otherwise consider drudgery become not only tolerable but a matter of pride. Foundations for the later feelings of responsibility are thus laid. When, on the contrary, a child feels that he is in constant disgrace, and that nothing he does seems right, he is likely to be oversensitive and defensive. Some children who cannot or do not win recognition for socially desirable behavior, find their satisfaction in the notoriety which comes from antisocial behavior.

Parents certainly may impose demands upon their children but at the same time be generous in allowing them to make less important decisions. Most children accept reasonable restrictions providing they have the repeated reassuring experience of having their own desires considered when major decisions are not at stake. However, it is important that children not be forced to assume responsibilities until they have the capacity to do so. Children are as aware as adults that they do not have the ability to judge values in an adult world. They become frightened and confused if the occasion arises where they are required to form judgments in matters beyond their ability, but they gain a sense of confidence if they can be free to make decisions in matters in their own sphere of action.

The child's need for increasing independence is another emotional need which must be considered in the interests of the development of social adequacy. The infant, of course, is totally dependent upon his parents. However, every parent must realize that the day will come when this helpless child must become an emotionally mature adult who can stand on his own feet and win for himself a place in the professional, economic, and social world. The ability to assume independence and to make use of it constructively is not a sudden acquisition in later adolescence. Rather it is the result of a process of growth, training, and experience throughout childhood. As early as late infancy, the need for independence becomes manifest. As soon as the child discovers that he has a will of his own, he enjoys exercising it by making his own decisions, participating in plans for himself, and resisting plans which are imposed upon him.

Parents, of course, must recognize the child's limitations and need for direction; but within limits compatible with the child's safety, and rights of others, the exercise of a child's ability to do things for himself and to make his own decisions is a valuable growth experience for him. The importance given to the satisfaction of childhood needs, however, does not necessarily mean that the child should be indulged without limit. The child has to learn to live not only with himself but with other people. There are socially desirable and again socially handicapping and harmful ways in which human needs can be satisfied. And the foremost function of the home and the school is to direct childhood activities into useful and acceptable channels.

In the home, the child needs a pattern within which he can organize his developing powers and capacities. Harmonious and constructive home life is hardly possible without some authority and

order. When there is no authority in the home, or when authority is divided or inconsistent, chaos in home living results. The child becomes confused, feels insecure, and may acquire disrespect for all authority, an attitude which later interferes with his school and community adjustment. Children who have not learned the meaning of authority in the home frequently have great trouble in school.

Authority alone, however, is not enough to keep order. Authority may be ineffective and harmful if it is not understanding, reasonable, and just. Without a background of affection, trust, and mutual respect, authority deteriorates into pure tyranny. In the home, therefore, the child needs to learn that certain things are not done. In every home there are times and situations when parental firmness is necessary to limit behavior. Most parents realize that it is natural for children to test out the limitations in every new situation. Children need to know what acts will be permitted and what will happen if they do what is forbidden. It is therefore necessary for parents to determine where they must draw a line for each individual child. Once having taken a stand, they hold firm and allow the child to learn by unpleasant experience that he has crossed that line. Thus in these lessons of daily living, the child learns to bring his desires and aspirations into harmony with his family and the larger community.

Summary

The foundations of democratic life lie in the freedom and liberty it offers the individual. While these factors are undoubtedly prerogatives of the adult in our society, they are sharply limited in respect to children. If adults were subject to the same restrictions that are arbitrarily imposed upon children, they would be quickly moved to rebel and become psychological problems. Yet limitations in behavior, though necessary, are frequently set in a rigid pattern by anxious and tense parents.

The ability to assume the responsibilities of a mature citizen does not suddenly occur to the individual when he reaches legal age, but rather is a process of gradual maturation where rebellions and conflicts have been faced by both the parents and the child. By understanding, patience, and sympathy, children can be helped to understand the meaning of the democratic way of life and bring their aspirations toward a normal and socially well-adjusted existence.

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658 Maccabees Building

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MANAGEMENT OF THE PREMATURE INFANT

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in retrolental fibroplasia. The more statistics are accumulated as to the fundoscopic appearance of the eyes of all small prematures, the more likely are we to reach the answer.

Meanwhile, let me close by pointing out that success in caring for premature infants depends not only upon the successful adjustment period, the provision of nursing care, and the defense against infection, but also on the doggedly maintained belief that any given premature infant can survive and is worth saving.

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The extrinsic tumors which form the largest percentage of cancers in women can and should be diagnosed in an early stage when treatment is most successful.

The Management of Migraine in Office Practice

By Alexander Gotz, M.D.
Ann Arbor, Michigan

HEADACHE is undoubtedly one of the commonest symptoms encountered by the physician in the course of his daily work. Much has been written and said about the diagnostic approach to the patient whose chief complaint is headache. It has been stressed that diagnostic possibilities in each case extend from serious organic disease, such as intracranial tumors, to purely functional states, such as eyestrain or excessive nervous tension.

Since it would be obviously impossible and unnecessary to submit every patient with a headache to a series of elaborate and costly investigations, every effort should be directed toward classifying the type of headache under consideration by means of simple and easily available procedures. A carefully taken and evaluated history and physical examination will in most cases furnish enough clues for a working diagnosis, which in turn is to be followed by appropriate therapeutic measures.

The present report concerns itself with the diagnosis and treatment of migraine as encountered in office practice.

Migraine is a very common functional disorder. It has been estimated that up to 8 per cent of the population suffer with this type of headache.[5] It may be defined as a periodically occurring attack of severe, usually unilateral, throbbing head pain, frequently preceded by visual or mood disturbances, and accompanied by gastrointestinal symptoms, photophobia, and profound prostration. It occurs in individuals who very frequently give a family history of this disorder, and who present a fairly characteristic personality pattern. These patients are meticulous and over-conscientious. They are aggressive perfectionists with a great deal of drive and ambition, and are inclined to be rigid and inflexible in their thinking. Frequently, a migrainous attack may be precipitated by emotional stress or physical fatigue. Women definitely outnumber men suffering with migraine. While the age incidence is not uniform, it is commonly experienced that women in their reproductive years represent the largest group of migrainous patients. It is important to remember that these patients are entirely well between attacks.

While the precise pathophysiology of migraine is still unknown, Wolff's vascular theory of events has been accepted by many authorities.[14] According to this theory, migraine is a biphasic phenomenon. The first, or vasoconstrictive phase, consists of spasm of intracranial arteries, largely branches of the internal carotid artery. This phase is responsible for the prodromal symptoms, such as scotomata, paresthesias, et cetera, and may be very brief in duration. This is followed by vasodilatation of extracranial vessels, chiefly branches of the external carotid. The middle meningeal artery, although intracranial, is included in this group. The increased amplitude of pulsations causes stimulation of pain fibers in the vessel walls and neighboring meninges, thus producing the throbbing head pain. The afferent fibers belong to the fifth, ninth, and tenth cranial nerves, and the first three cervical nerves. The vasodilatation is followed by edema of the vessel walls, with continuing pain impulses. When this stage is reached, the vessel wall no longer responds to vasoconstricting drugs, having been rendered inelastic by edema. This last fact is of paramount importance in the institution of rational treatment.

Ideally, the treatment of migraine should be directed toward eradication of the pathologic mechanism responsible for the attack. This goal, however, has not been achieved as yet. An occasional case has responded well to the elimination of allergens, mostly dietary in nature.[13] In the vast majority of patients, however, symptomatic treatment has to be resorted to. Ergotamine and its derivatives have been used extensively in the therapy of migraine and have been found to be superior to a variety of other drugs employed. Ergotamine is one of a group of alkaloids produced by the fungus Claviceps purpurea which grows in the ears of infected rye. It was isolated in crystalline form by Stoll in Switzerland in 1918, and extensive pharmacological research with this and other ergot alkaloids has been carried out since that time.[4] Three distinct preparations of ergotamine are being used now in the treatment of migraine. Ergotamine tartrate (Gynergen), dihydroergotamine methanesulfonate (DHE 45), and a combination of ergotamine tartrate 1 mg. with caffeine 100 mg. (Cafergot). The first two drugs

From the Department of Internal Medicine, St. Joseph's Mercy Hospital, Ann Arbor, Michigan.

TABLE I. RESULTS OBTAINED WITH CAFERGOT BY MOUTH IN 25 PATIENTS WITH TYPICAL MIGRAINE

Case	Sex	Age	Family History	Tablets Required For Relief	Side Effects	Results Exc.	Good	Poor	Remarks
1 E.G.	M	42	+	4	−	×			
2 N.D.	F	35	+		+			×	Vomits Cafergot no matter how early taken. Good results with DHE 45 by injection.
3 J.G.	M	24	−	2 to 4	−	×			
4 E.C.	F	70	+	2	−	×			
5 Z.B.	F	32	+	4	+			×	Severe vomiting. Refuses to take Cafergot again.
6 C.B.	F	30	−	4	−		×		Pt. had Acroparesthesia. Cafergot stopped.
7 R.B.	F	38	+	4	+		×		Dizziness, nausea if not in prone position.
8 A.C.	F	55	+	2 to 4	−		×		
9 V.G.	F	41	+	4	+		×		Nausea, mild.
10 B.B.	F	20	−	4	−		×		
11 C.M.	M	30	+	4	−		×		
12 P.J.	F	20	+	2 to 4	−	×			} Mother and Daughter
13 M.J.	F	50	+	2 to 4	−	×			
14 L.A.	F	32	−	4	−	×			
15 J.G.	M	36	+	2	−	×			
16 A.H.	F	46	+	1	+	×			Vomits if not taken early during attack.
17 J.K.	F	40	+	2	−	×			
18 C.K.	F	36	+		+			×	Vomits as Case No. 2. Good results with DHE 45 by injection.
19 D.P.	F	50	+	4	+	×			Nausea and vomiting.
20 H.W.	M	49	−	2 to 4	−	×			
21 R.N.	F	50	+	4	−	×			
22 H.H.	F	52	+	2	+	×			Nausea, mild.
23 P.M.	M	25	+	4	−		×		
24 G.S.	F	27	+	4	+	×			Nausea, mild.
25 S.V.	F	42	+	2	−	×			

are available both for oral and parenteral use, while Cafergot is used by mouth only. The addition of caffeine to the ergotamine is based on the known vasoconstrictive properties of caffeine in therapeutic doses. It is assumed that a synergistic effect is achieved by this recent combination. Some authors believe that in addition to the vasoconstrictive effect the diuretic action of caffeine may play a part in its therapeutic effectiveness in migraine.[4]

A number of reports on the satisfactory response of migraine to Cafergot have appeared in the literature.[1,3,4,5,6,7,8,10,11] Most authors agree that this preparation is more effective for oral administration than the two older ergotamine derivatives, and that for parenteral use, DHE 45 is preferable to ergotamine tartrate because it is less toxic.

We have used Cafergot in a group of twenty-five office patients for from three months to two and one-half years. The average duration of follow-up is fourteen months. In contrast to some of the published series, this group of patients does not include any cases of so-called "tension" headaches, nor any histamine headaches. All our patients satisfied the commonly accepted diagnostic criteria of migraine, as described in the introductory paragraphs of this report. The principal pertinent data have been incorporated into Table I.

The sex distribution shows the predominance of female migraine sufferers. A definite family history of the disorder was obtained in 80 per cent of the patients, a figure which is somewhat higher than those appearing in most reports.

We were interested in determining the smallest effective dose in each case. With this in mind, each patient was instructed to take two tablets of Cafergot at the onset of the headache, or of the prodromal symptoms, if such were present. This dose was to be repeated after one and two hours, if complete relief had not been obtained until that time. Under no circumstances was the patient to ingest more than six tablets on any one day. None of the patients required the full permissible dose of six tablets. The effective dosage varied between two and four tablets, frequently depending on the time when the treatment began with respect to the onset of the symptoms. Twenty-two of the twenty-five patients with typical migraine, who were able to retain the ingested tablets, obtained marked to complete relief from this medication. One patient who responded well had to be taken off ergotamine because she was found to have acroparesthesia, which had been present prior to any Cafergot medication. Three patients vomited no matter how early they took the tablets. Of these, one obtained good relief from the headache, but refused to continue medication because of the severity of the vomiting. The other two vomited the tablets before they were absorbed, and were instructed in the self-administration of DHE 45, with good therapeutic results.

Side-effects were rather common, occurring in a total of nine patients (35 per cent). Nausea with and without vomiting was encountered most commonly. This was usually worse the later in the course of the attack the drug had been taken, and

was undoubtedly aggravated by, or combined with the nausea and vomiting inherent to the migrainous attack *per se*. Another manifestation was dizziness and weakness, allayed by rest in bed. No symptoms or signs of ergotism were seen in this small group. The only patients who developed mild ergotism had been given a Cafergot suppository containing 2 mg. of Ergotamine tartrate and 200 mg. of caffeine. One of the patients (Case 4) experienced severe generalized abdominal cramps, complained bitterly of substernal constriction, and of coldness and numbness of all four extremities, about thirty minutes after the insertion of such a suppository. The other patient (Case 3) had similar, but much milder symptoms, a similar time after the insertion of a suppository. Both patients had received Cafergot by mouth prior to and following these episodes, with excellent results, and no untoward complications. Use of Cafergot suppositories was stopped after the above experiences.

These Ergotamine-caffeine suppositories were supplied as an experimental preparation. It is of interest to note that other authors who used this material observed nervous excitement, palpitation, diaphoresis, as well as nausea and vomiting in a significant number of their patients.[2,9] Others, however, had good results with the suppositories and recommend them for those who vomit early in the course of the attack.[10]

Discussion

Migraine is a sufficiently common, characteristic, and relatively easily diagnosed disorder to deserve more attention than it frequently receives in the consultation rooms. It is of great interest to note that most patients in the present series had suffered from their attacks for years, and had been given all sorts of ineffective analgesics, to the point where they were reluctant to try a "new" pill. Others had become so hopeless in their search for relief, that they did not even mention their migraine spontaneously, in the course of relating their histories.

In the absence of a curative drug, Cafergot and the injectable ergotamine preparations represent valuable and relatively safe symptomatic remedies, which will abort a migraine attack in a very high percentage of cases, provided they are taken early enough, before the vessel walls become edematous, and therefore, unable to contract. Cafergot is the preparation of choice for those who are able to retain it. Patients should be advised to recline for about one hour after taking the drug in order to decrease nausea and vomiting. If parenteral administration has to be resorted to, DHE 45 is to be preferred to ergotamine tartrate because it is less toxic and more effective.

Summary

1. Incidence, symptomatology and the currently accepted theory of patho-physiology of migraine are discussed.

2. The presently available ergotamine preparations and their respective merits in the symptomatic treatment of migraine are described.

3. A series of twenty-five cases of migraine patients treated with Cafergot is presented.

4. Two to four tablets of Cafergot will abort most attacks of migraine if taken early enough.

5. Some toxic side effects were present in 35 per cent of the cases. It is believed that this figure could be decreased by emphasizing earlier administration of the drug.

6. A plea is made for the accurate recognition and appropriate treatment of migraine in office practice.

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NHP Insulin

By Priscilla White, M.D.
Boston, Massachusetts

THIS ARTICLE is a further clinical report on the use of modified protamine insulin, NPH: (1) what it is; (2) why it is indicated; (3) how it differs from present market insulins; (4) what has been the experience of the Joslin clinic in its use over a two-year period; (5) what techniques have been employed in its administration and (6) what are its failures as well as its successes.

Insulin of the NPH type is prepared from crystals of protamine insulin formed according to a method developed in Hagedorn's laboratory (by Krayenbuhl and Rosenberg). Its content of zinc is low. Nearly neutral in reaction (ph 7.2), it is designated N; protamine, it is termed P; improved by Hagedorn, it is named H; containing 0.50 mg. of protamine per 100 units of insulin, it was tagged 50—therefore, NPH_{50} insulin, to be marketed as NPH insulin.

New modifications of insulin are being, and should continue to be, sought. All forms of market insulin are good, but they have four obvious defects: (1) their administration is parenteral; (2) their time of action is too short or too long; (3) their hypoglycemic action is too slow or (4) may be one of abnormal degree. The physiologically ideal insulin has been defined as one which releases insulin as tissue sugar rises and withholds it as tissue sugar falls, thereby controlling hyperglycemia and preventing hypoglycemia. Since this ideal insulin is not available, clinicians are requesting an insulin practical in nature, one with instant availability and one which has prolonged twenty-four-hour action. Modified NPH insulin has some of these desired clinical properties.

The blood sugar lowering action of NPH insulin is relatively quick, because it begins some two hours after administration, compared with one hour for regular and crystalline insulins, one to two hours for globin and six to eight hours for protamine zinc insulin. The maximum blood sugar lowering action occurs some ten to twenty hours after administration, compared with three hours for regular, six hours for globin and twenty-four hours for protamine zinc insulin. The duration of action is long, namely, twenty-eight to thirty hours compared with six to eight hours for regular and crystalline, respectively, fifteen hours for globin (in severe diabetics) and up to seventy-two hours for protamine zinc insulin. In mixtures the modified protamine (NPH) absorbs less of added crystalline insulin than does market protamine zinc insulin. The lesser degree of absorption by NPH insulin is due to its predominantly crystalline character and the smaller amount of protamine—0.50 mg. of protamine per 100 units of insulin in contrast to 1.25 mg. of protamine per 100 units of insulin in market protamine zinc insulin.

NPH insulin is relatively quick in action for it lags two hours only, has intermediate action—some twenty-eight hours, has nocturnal hypoglycemic hazard. From this description it is evident that NPH insulin resembles both the popular 2:1 mixture of crystalline and protamine insulin and also globin insulin.

Between June, 1948, and September, 1950, 654 patients of the Joslin Clinic were treated with NPH insulin. This group of patients consisted largely of those whose diabetes was characterized by its severity and those in whom clinical control of the disease was difficult. The majority, 484, were patients under twenty years of age, but many, 170, were adults. The group of patients under twenty years of age were those patients reporting in sequence. The choice among the adults was a selective one: obstetric patients with diabetes comprised a small group, eighteen; 142 were chosen because of great sensitivity to insulin; and ten patients had comparison studies made. The series of patients is overloaded with young diabetic persons because severity and lability characterize juvenile diabetes, but experience with them can be used as a therapeutic guide in all patients whose diabetic management is difficult.

Adjustments to NPH insulin were made in three different units: first, at our two summer camps; second, in the Deaconess Hospital, and third, in the office. The greatest number were transferred to NPH insulin in the office or hospital, 383, whereas 271 were adjusted at the camp units.

Fasting experiments were not conducted. However, after stabilization on NPH insulin, twenty-five children had capillary blood sugar determinations at approximately two-hour intervals on typi-

Presented at the eighty-fifth annual session of the Michigan State Medical Society, Detroit, Michigan, September 22, 1950.

cal camp days. A single dose of NPH insulin was administered to each patient. The Folin Malmros micro method was used. The average curves for the seven girls (Charts 1 and 2) whose blood sugar levels were determined in the morning at 7:00, 9:30, and 11:00, in the afternoon at 2:30 and 4:30, in the evening at 8:30 and 11:30 and during the night at 1:00, 2:30, 4,00, and 5:30, showed a rise to abnormal values in three periods only, namely, at 9:30 after breakfast, at 11:00 in the morning and at 2:30 in the afternoon after lunch. The average blood sugar values for the remaining nine periods were all at normal levels. The lowest average occurred at 4:00 a.m., twenty hours after the administration of insulin. Eighteen boys had blood sugar determination at exactly two-hour intervals starting at 7:15. The experience with them was similar again except at 9:15, 11:15 a.m. and 1:15 p.m. the average blood sugars were normal. The lowest, 90 mg., occurred at 5:15. Two boys out of the twenty-five children had afternoon hypoglycemia.

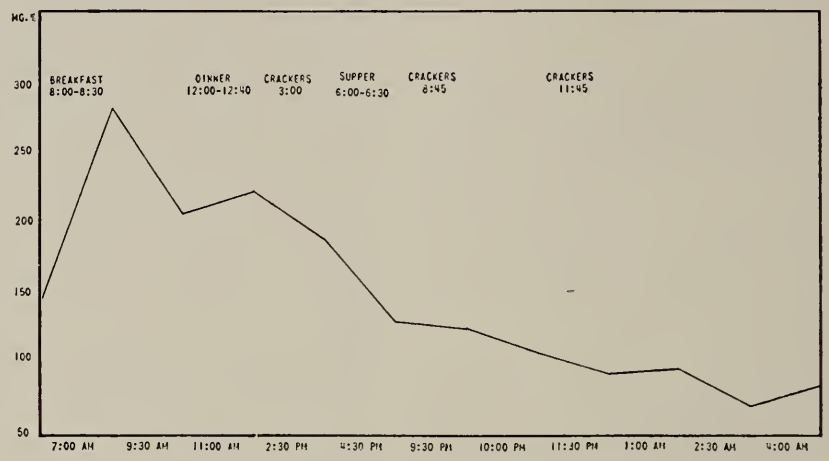


Chart 1. Composite curve of levels of capillary blood sugar of seven patients receiving modified protamine insulin (NPH-50) on a typical camp day.

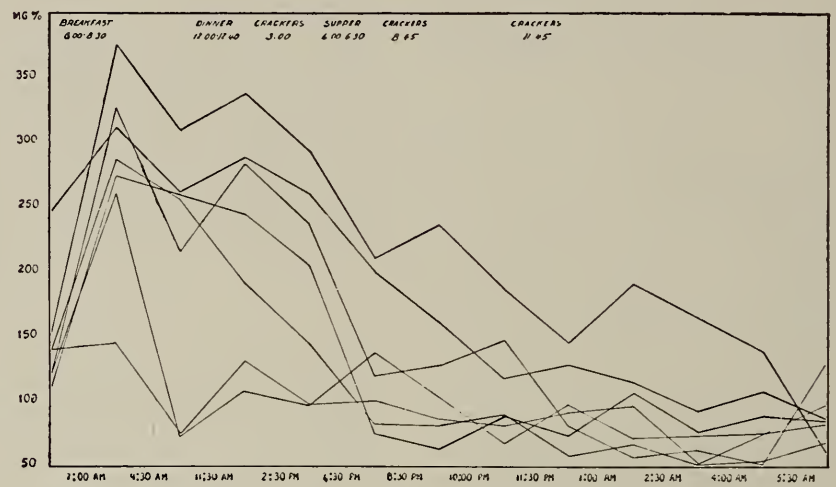


Chart 2. Individual curves of levels of capillary blood sugar of seven patients receiving modified protamine insulin (NPH-50) on a typical camp day.

In 1948 at the girls' camp an attempt was made to accomplish chemical control with NPH insulin alone. In 1950 rapid chemical control was sought without any attempt to use NPH insulin alone. In 1948 after they had been stabilized with separate injections of crystalline and protamine zinc insulin and again after they had been stabilized with a single injection of NPH insulin, the levels of blood sugar at 7:00 o'clock fasting, in the morning at 11:00, in the afternoon at 4:00 and in the evening at 8:00, were determined on seventy-two girl campers. The average blood sugar level was lower at each age fasting, at 4:00 p.m. and at 8:00 p.m. when NPH insulin was admin-

istered. The average blood sugar level for each year of age was lower at 11:00 a.m. when separate injections of crystalline and protamine zinc insulin were administered. The experience with diabetic boys was similar. Thus in juvenile diabetic campers a single injection of NPH controlled diabetes chemically as well as, if not better than, separate injections of crystalline insulin and protamine zinc insulin.

In 1950 at the girls' camp the standard for chemical control was normal glycemia fasting, at 11:00 a.m., at 4:00 p.m. and 8:00 p.m. Fifty-eight (65 per cent) required supplementary crystalline insulin added to NPH. Of 1,658 determinations for blood sugar, only four were 60 mg. or below.

Comparison studies were carried on in adults by Dr. Alexander Marble and Dr. A. J. Gabriele. "In one series of ten patients with ages ranging from forty to seventy-eight years and duration of diabetes from one to twenty-three years, NPH was substituted for market varieties successfully. Following a fore-period in which regulation of the diabetic condition was achieved by means of protamine zinc insulin either alone or in combination with unmodified insulin given in the morning before breakfast, NPH was substituted for a period of three to eight days. Following this, the patient was returned to market varieties. Throughout the study frequent estimations of the urine and blood sugar were made. It was found that in adult patients with diabetes of moderate severity and yet of relatively stable character, no difficulty was experienced in substituting NPH for the market varieties."

Of the insulin-sensitive adults three-quarters of the number were controlled more easily with a single dose of NPH insulin than they were before but one-quarter of them did not show improvement. The seriousness of hypoglycemia in this group cannot be overemphasized. Jobs are at stake; professional judgment is disturbed, and the care of young children a risk.

The results of the use of NPH insulin in the obstetric patient were encouraging. Low renal threshold for glucose characterizes the pregnant diabetic woman and is one of the causes for her susceptibility to ketosis and to hypoglycemia. Therefore, our scheme for insulin therapy in this group has included separate injections of crystalline insulin and protamine zinc insulin before breakfast supplemented by crystalline insulin before lunch, before dinner and even at bedtime. In 60 per cent of these patients a single injection of NPH insulin replaced multiple injections.

Although the evaluation of a new form of insulin should be made when patients are under direct medical supervision, practical evaluation of insulin therapy in diabetic subjects must include a survey of the results obtained among patients controlling their own treatment. Therefore, clinical success with NPH insulin was measured further: (1) by the degree of chemical control after the patients were discharged from camp or hospital, (2) by freedom from reactions, (3) by freedom from bouts of acidosis, and (4) by the maintenance of proper nutritional levels and of the promotion of normal rates of growth and development.

Bouts of coma and reactions of severity were infrequent. Adults maintained weight. Children showed normal to superior Wetzel grid ratings. Thirty patients (5 per cent) were hospitalized for keto acidosis, and twelve (2 per cent) for hypoglycemia.

Of the range of 638 random blood sugar tests, 40 per cent were less than 200 mg., 70 per cent less than 300 mg., 30 per cent exceeded 300 mg.

NPH insulin is not a panacea nullifying the need for diet in relation to chemical control of diabetes.

The technique used for the readjustment from crystalline insulin and protamine zinc insulin to NPH insulin was simple. The sum total in units of all previous doses of insulin was given. It was learned quickly that most patients required in units larger doses of insulin of the NPH type. The average difference, however, was not great—7 units.

The most important single test for the regulation of NPH as it is with all long-acting insulins is the true fasting test for sugar in the urine. It should be aglycosuric or nearly so. Hyperglycemia and glycosuria occurring at pre-meal and retiring periods in the presence of a perfect fasting test may be prevented by reapportioning the diet. Carbohydrate may be subtracted from the offending meal and added to diet in the latter part of the day, then NPH insulin is most effective. The prescription of exercise is also useful. Since little absorption of quick-acting insulin occurs in mixtures of crystalline insulin and NPH, early daytime glycosuria may be prevented by such an addition. The range of average dose necessary in severe juvenile diabetics was 4 to 10 units.

The caloric prescriptions commonly used in the clinic were continued, namely, 30 calories per kilogram of ideal body weight for adults, 30 calories per kilogram of increasing body weight for pregnant diabetic women, and 1000 calories at age one, with 100 calories added for each year of age for diabetic children. The range for carbohydrate was 150 to 250 grams daily. The carbohydrate for breakfast was maintained at a low level, one-fifth of the total; two-fifths were prescribed for lunch and two-fifths for supper. Mid-morning lunches were omitted but small lunches of 10 grams of carbohydrate were given to children in the afternoon and usually 20 grams to all patients at bedtime.

The most conspicuous failures with NPH insulin occurred as one would anticipate among those few patients whose requirement for rapidly acting insulin is great in proportion to that of slowly acting insulin. This is commonly observed in very young diabetic children among whom unexpected pre-lunch reactions occurred and among whom unexpected severe nighttime hypoglycemia was not uncommon.

The advantages of the use of NPH insulin compared with market varieties are as follows. A single injection of NPH or a single injection of crystalline insulin plus NPH controls diabetes more satisfactorily than multiple injections of crystalline insulin, prevents hepatomegaly and lessens the chances for insulin atrophy and induration. NPH insulin has longer hypoglycemic action than globin insulin in severe diabetics and is more desirable in the management of young and severe cases. It is simpler mixed with rapidly acting insulin than is protamine zinc insulin. There is less danger of overlapping of doses because its duration of action is shorter than that of protamine zinc insulin.

After two years' clinical experience with NPH insulin our conclusions remain.

1. In a few instances only a single injection of NPH insulin was less successful in controlling diabetes than were separate injections of crystalline insulin and protamine zinc insulin. These few failures included one fourth of the insulin sensitive adults, the majority of diabetic children under age five and those other patients whose requirements for long-acting insulin are small compared with their requirements for quick-acting insulin.

2. In 95 per cent of 644 persons with severe diabetes, NPH insulin was used as successfully, if not more so, than separate injections of crystalline insulin and protamine zinc insulin.

3. Regulations of diet and of exercise are a necessary adjunct to treatment with NPH insulin in order to maintain chemical control of diabetes.

4. Small doses of rapidly acting insulin added to NPH control post-breakfast hyperglycemia.

5. NPH insulin combines long duration of action with rapid availability. When administered before breakfast, its hypoglycemic hazard is nocturnal.

6. NPH is a desirable insulin for the treatment of severe, labile diabetes.

7. NPH insulin will probably replace protamine zinc insulin.

MSMS

LEGISLATION INTRODUCED

While reviewing the material on legislative proposals for disability compensation, we became interested in the relative popularity of the three established types of programs—the exclusive state fund as in Rhode Island, the optional arrangement used by California and New Jersey, and the all private plan system in New York—over the years during which there has been active consideration of such legislation. The accompanying table shows the number of bills, providing for each of the three types which were introduced in the three years in which the largest number of state legislatures were in session.

	1947	1949	1951
State monopoly	33	47	15
All private	5	8	9
Optional	5	16	10
Total	43	71	34

* * *

PHYSICIANS' HELP ASKED IN HALTING USE OF NOSTRUM

United States Food and Drug Administration is asking help of physicians in warning diabetics against a remedy being mailed into this country from Mexico, which FDA describes as *"worthless and extremely dangerous if employed as a substitute for insulin."* If doctors know of diabetics who have the preparation, they may communicate the information to FDA, which will contact the patients immediately. It is advertised as *Cacalla Composita, Mexican Indian Root,* and is being offered by "Mexican Indian Root Co., Mexico City," under the name of Dr. Miguel C. Martinez, general manager. One-inch advertisements have appeared in newspapers and magazines in about a dozen cities, and direct mail advertising also is being used. It is priced at $15 and $25, cash in advance. Among twenty individual packages intercepted were shipments destined for all parts of the country. AMA's Bureau of Investigation first called the situation to the attention of FDA.

* * *

DIRECTORY OF VENEREAL DISEASE CLINICS

The United States and Territories now have *2,267 public venereal disease clinics:* forty-two states have prenatal laws requiring blood tests and forty-one states have premarital laws requiring blood tests and physical examinations for venereal disease. These and numerous other facts are contained in the newest *Directory of Venereal Disease Clinics* issued by the Division of Venereal Disease, Public Health Service. The 157-page directory also includes names and addresses of each diagnostic and treatment facility.

Sensitivity of Fungi to Antibiotics and Radioactivity Compared to Iodine in Vitro

By J. M. Hammer, M.D., Parchment, Michigan; I. A. Pearson, B.A., K. E. Corrigan, Ph.D., and H. S. Hayden, Ph.D.
Detroit, Michigan

THE literature covering the years since the appearance of antibiotics yields numerous articles describing the sensitivity of fungi to various individual therapeutic agents in the antibiotic and isotope series.

The major part of this work consisted of testing the fungi against one or two agents or testing a few fungi against several agents. Some of the papers were clinical case reports describing the effects of a single drug or combination of drugs on a patient.

In this paper the *in vitro* effects of eight antibiotics, radioactive phosphorus, radioactive iodine, sulfadiazine, and potassium iodide were checked against forty-one stock fungus cultures which included pathogens, allergens and common contaminants. The *in vitro* results obtained naturally cannot be applied to *in vivo* preparations without further study. Because potassium iodide has been used empirically for many years in the treatment of fungus infections, it has been included as a standard for comparison.

The cultural characteristics of the fungi are included in Table I. The table lists the fungi alphabetically and gives some of the pertinent characteristics of these fungi. No discussion of this table is necessary.

Methods

The method used in transferring the fungi has been described by the authors in a previous paper dealing with the transferring of fungi grown in the presence of radioactive isotopes.[1]

The sensitivities were done by the serial dilution method. The antibiotics, sulfadiazine and potassium iodide solutions were added to Penassay Broth (Difco) in the amounts used routinely in sensitivity tests. Saline suspensions from actively growing fungus cultures were added, using the pipet method. Controls were set up with each antibiotic and with each organism. As soon as the controls showed growth the results in the test materials were recorded.

Results

The results are tabulated in Table II. Only inhibition of growth is recorded. It is represented by "I." Forty-one assorted fungus cultures, both pathogenic and nonpathogenic, were exposed to high voltage x-ray, gamma rays (I^{131}), beta rays (P^{32}), potassium iodide, sulfadiazine, Aureomycin, Bacitracin, Chloromycetin, Fumagillin, Neomycin, penicillin, streptomycin and Terramycin. As the chart demonstrates, several of the antibiotics have fungistatic action *in vitro*.

Discussion

The administration of 1,100 roentgen units of high voltage x-ray to actively growing cultures on Sabouraud's medium caused no inhibition of growth. The successful treatment of cutaneous fungus lesions with x-ray may depend upon the x-ray causing the layers of skin which contain the fungus to slough.

Small doses of beta rays, 20 microcuries of P^{32}, and of gamma rays, 20 microcuries of I^{131}, have a negligible effect upon the growth of fungi. The cultures were exposed to the isotopes for forty-eight hours and then subcultured. This lack of effect of radioactive isotopes upon fungi was first observed when active Alternaria spores were isolated from one of the first shipments of radioactive iodine released for civilian use.[2]

Potassium iodide has been used for many years in the treatment of systemic fungus infections, and it was therefore used as a standard for comparison. It was used in concentrations ranging from 750 mg. to 7.5 mg., which are higher than the blood levels obtained.

In a concentration of 2.5 mg., sulfadiazine, one of the more commonly used sulfa drugs, had no particular effect upon the growth of any of the fungi *in vitro*. However, higher blood levels are obtained therapeutically. When used in treatment, sulfadiazine may cause urticaria and the formation of precipitates in the kidneys if fluids are withheld.

Aureomycin, an antibiotic marketed by Lederle, is derived from Streptomyces aureofaciens. In a concentration of 1.25 mg. this drug showed very little inhibitory effect upon the fungi as a whole, but it did inhibit two of the pathogens, Trichophyton rubrum and Trichophyton violaceum. Aureomycin may cause pruritus ani and vulvae.

Bacitracin, an antibiotic derived from Bacillus subtilis (Tracy I strain), is produced by Pfizer,

TABLE I. CHARACTERISTICS OF FUNGI

Fungus	Growth on Sabouraud's Medium	Microscopic Characteristics	Appearance in Tissues	Tissue Attacked	Susceptible Animals	Disease Produced
Actinomyces asteroides	Room temperature: Glabrous, irregularly folded colonies—pale yellow to deep orange in color.	Gram-positive branching elements. Acid fast.	Gram-positive, acid-fast, branching elements.	Skin, bone, muscle.		Maduromycosis.
Alternaria	Rapid growth. Mycelium gray at first, then black with gray periphery. Reverse of colony black. Areas of loose white, cottony aerial mycelium may develop.	Muriform conidia in chain formation with transverse and longitudinal septations.				Plant pathogen, Allergy.
Aspergillus	Rapid growth. Surface white—filamentous growths, turning dark green as spores are produced.	Conidiophores expand into large vesicles bearing long chains of spores.	Broken fragments of hyphae with numerous small round spores.	Skin, bronchi or lungs, ear, bones, sinuses, meninges.	Guinea pigs, mice.	Aspergillosis, Maduromycosis.
Aspergillus niger	Rapid growth. Black filamentous surface growth.	Swollen conidiophore bearing sterigmata with long spore chains.				
Blastomyces brasiliensis	Room temperature: Slow-growing, heaped, membranous or wrinkled colony with short nap of white aerial mycelium. 37° C.: Yeastlike.	Sessile round to oval conidia or rapidly budding forms.	Large, spherical, thick-walled single and multiple budding forms.	Skin, mucous membranes, lymph nodes, internal organs.	Dog, guinea pig, mice, monkey.	South American Blastomycosis.
Blastomyces dermatiditis	Slow growth. Room temperature: White cottony aerial growth which later becomes tan to brown. 37° C.: Yeast phase.	Budding yeastlike cells and short mycelial fragments.	Single or budding spherical cells with thick walls—"double contoured".	Skin, bones, lungs, central nervous system.	Guinea pigs, mice, dog, monkey.	North American Blastomycosis (Gilchrist's disease).
Candida albicans	Creamy, medium-sized, moist to dull appearing colonies. Distinct yeasty odor.	Irregularly segmented mycelium; clusters of blastospores.	Budding, thin-walled, yeast-like cells. Occasional mycelial elements.	Mouth, vagina, skin, nails, Bronchi, lungs, meninges.	Rabbits.	Erosio interdigitalis, Chronic paronychia, Sprue, Thrush, Systemic moniliasis.
Cephalosporium	Colony at first compact, deep rose in color. Becomes overgrown with loose, white aerial mycelium.	Slender conidiophore with cluster of elliptical conidia at tip.				
Coccidioides immitis	Moist, membranous colony appears first. Rapidly overgrown with abundant white cottony aerial mycelium which becomes tan to brown with age.	Branching septate hyphae break into numerous thick-walled, rectangular, ellipsoidal or spherical arthrospores.	Non-budding, spherical, thick-walled structure filled with numerous small endospores.	Skin, lungs, bones, viscera.	Guinea pigs, mice.	Primary coccidiomycosis, Progressive coccidiomycosis.
Cryptococcus neoformans	Moist, slimy, mucoid, cream to brown colored colony. White, wrinkled, granular colony produced at first at room temperature.	Budding cells. Short germ tubes on primary isolation. Capsules in organisms from mucoid colony.	Ovoid to spherical, single-budding, thick-walled organism with wide refractile capsule.	Lungs, skin, brain and meninges, GI tract, mucous membrane.	Monkey, mice, rat, guinea pig.	Cryptococcus epidermica, European Blastomycosis, meningitis systemic.
Epidermophyton floccosum	Colony at first white and granular with small central tuft of mycelium. Later growth becomes velvety to powdery with radiating furrows. White sterile aerial mycelium develops in about 3 weeks.	Large, clavate, multiseptate, smooth, thin-walled macroconidia. Chlamydospores and racket hyphae seen in the mycelium.	Segmented, branching mycelial elements.	Skin, nails.	Guinea pig (slight).	Tinea cruris, Epidermophytosis, Onchomycosis.
Fusarium	Rapid white, cottony growth which develops deep rose color in center with light pink periphery.	Short hyphal branches. Verticillate conidiophores. Fusoid multiseptate conidia.				

TABLE I. CHARACTERISTICS OF FUNGI—CONTINUED

Fungus	Growth on Sabouraud's Medium	Microscopic Characteristics	Appearance in Tissues	Tissue Attacked	Susceptible Animals	Disease Produced
Geotrichum	Moderately fast growth. Dry mealy surface.	Hyphae segment into rectangular arthrospores. Many spherical cells.	Oblong or rectangular cell with rounded ends or large spherical cells.	Mouth, GI tract, bronchi, lungs.		Geotrichosis.
Gliocladium	Rapid white growth, which develops a dark green central zone, spreads quickly over surface of colony.	Flask-shaped sterigmata develop from conidiophores. Ovoid spores cut off from tips of sterigmata and fuse with spore of adjacent sterigmata to form large clusters.				
Helminthosporium	Rapid-growing colony is at first grayish, then forms a matted black, depressed mycelium with raised grayish periphery.	Conidia occur in clusters on short, knotted conidiophores. Conidia are long, round-ovate with several transverse septa.				
Histoplasma capsulatum	Slow growth. White, cottony, aerial mycelium which later turns brown to buff in color.	Branching septate hyphae with small, round, smooth spores on short lateral branches or sessile branches. Later round, tuberculate chlamydospores appear.	Small, oval body in large monomuclear cells. Occasional budding forms can be demonstrated.	Skin, systemic.	Guinea pigs, mice, dog, monkey.	Histoplasmosis.
Hormodendrum	Slow-growing, dark-brown colonies showing great variation with individual strains.	Conidiophores of varying lengths bearing chains of masses of single-celled conidia.	Single or clustered round, thick-walled, dark brown bodies which multiply by splitting.	Skin.		Chromoblastomycosis.
Hormodendrum compactum	Slow-growing, heaped, brittle colony which is olive black in color.	Terminal and lateral conidiophores bearing compact masses of long branching chains of subspherical conidia.	Spherical, dark-brown, thick-walled, splitting cells.	Skin.		Chromoblastomycosis.
Hormodendrum Pedrosoi	Slow-growing colonies, dark-brown to black in color. Individual strains show great variation.	Chains of single-celled conidia. Conidiophores may be flask-shaped, single lateral branches, or long terminal cells.	Spherical, dark-brown, thick-walled, splitting cells.	Skin.		Chromoblastomycosis.
Microsporum Audouini	Slow growth. Close matted, velvety aerial mycelium, light gray to brown in center with radiating furrow. Reverse of colony is reddish-brown to orange in color.	Few large, multiseptate macroconidia in primary cultures. Racquet mycelium, pectinate hyphae, nodular bodies, chlamydospores. Microconidia borne laterally on hyphae.	Hair: mosaic sheath of spores surrounding hair shaft. Skin: segmented, branching in mycelial elements.	Scalp, glabrous skin.	Difficult to inoculate any lab animal.	Tinea capitis, Tinea of glabrous skin.
Microsporum canis (lanosum)	Rapid growth. Cottony to wooly aerial mycelium which becomes powdery and buff to light brown in the center. Reverse of colony is reddish-brown to orange in color.	Numerous large, multiseptate, rough thick-walled macroconidia. Few small single-celled, clavate microconidia in primary cultures. Racquet hyphae, pectinate hyphae, nodular bodies, chlamydospores, and rarely coils.	Hair: mosiac sheath of spores surrounding hair shaft. Skin: segmented, branching in mycelial elements.	Scalp, glabrous skin.	Kitten, puppy, guinea pig.	Tinea capitis, Tinea of glabrous skin.
Microsporum gypseum	Rapid growth. Powdery. Buff colored. Some strains develop white, wooly aerial mycelium which later becomes powdery and light brown in center with radiating furrows. Reverse of colony is reddish-brown in color.	Numerous, large, septate, ellipsoid, rough-walled macroconidia. Few microconidia. Racquet hyphae, pectinate hyphae, nodular bodies, chlamydospores, and rarely coils.	Hair: mosiac sheath of spores surrounding hair shaft. Skin: segmented, branching in mycelial elements.	Scalp, glabrous skin.	Rabbit, cat, guinea pig.	Tinea capitis, Tinea of glabrous skin.
Monosporium apiospermum	Rapid growth. White cottony aerial mycelium which later turns gray to buff to brown.	Pyriform conidia produced singly at ends of long conidiophores or from sides of mycelium on short conidiophores.	Mass of segmented, branched hyphae. Many large chlamydospores or hyphal swellings.	Skin, bone, muscle.		Maduromycosis.

TABLE I. CHARACTERISTICS OF FUNGI—CONTINUED

Fungus	Growth on Sabouraud's Medium	Microscopic Characteristics	Appearance in Tissues	Tissue Attacked	Susceptible Animals	Disease Produced
Mucor	Rapid growth. Floccose aerial mycelium, at first white, then gray.	Nonseptate mycelium. Numerous sporangiophores which branch irregularly and bear terminal globose, spore-filled sporangia.	Strands of mycelia, spores.	Lungs, skin, ear, meninges (?).		Otomycosis, pulmonary mucormycosis, paronychia, meningitis (?).
Nigrospora	Rapid, compact, wooly, aerial growth which becomes gray due to black sporulating mycelium on surface. Reverse of colony is black.	Swollen or ampulliform conidiophores. Black, shiny, depressed-globose conidia.				
Oospora	Rapid growth. Light buff-colored, wooly aerial mycelium.	Long, slendor hyphae which break up to form thin-walled rectangular cells.				
Paecilomyces	Rapid growth. Yellowish-brown. Powdery.	Elliptical conidia in unbranched chains from tip of flask-shaped sterigmata.				
Penicillium	Rapid growth. White at first, then bluish-green and powdery.	Conidia in unbranched chains cut off from tip of flask-shaped sterigmata verticiallately arranged.	Small round spores and bits of hyphae.	Lungs, ear.		Penicilliosis (pulmonary) Otomycosis.
Phialophora verrucosa	Slow growing, dark-brown colonies, varying greatly with strains.	Conidia produced from cups at tip of flask-shaped conidiophores borne on aerial mycelium. Conidia are thin-walled and oval.	Round, thick-walled, dark-brown bodies which multiply by splitting.	Skin.		Chromoblastomycosis.
Rhizopus	Rapid growth. Dense, cottony, aerial mycelium. At first white, then dark gray.	Nonseptate aerial mycelia with numerous runners, connecting groups of unbranched sporangiophores. Black, globose, spore-filled sporangia.	Spores, strands of mycelium.	Ear.		Otomycosis.
Rhodotorula	Slow growth. Colony moist and glistening, having consistency of bacterial colony. Red color.	Round to oval, thin-walled, budding cells.				
Scopulariopsis	Slow growth. At first membranous, wrinkled and glabrous Becomes powdery and light brown when aerial hyphae and conidia develop.	Sterigmata, bearing unbranched chains of rough-walled conidia may be clustered from branches of short conidiophore or appear singly on hyphae. Lemon-shaped spores.	Strands of mycelium, spores.	Ear.		Otomycosis.
Sporotrichum Schenckii	Colonies at first small and white with no aerial mycelium. Surface becomes moist, wrinkled and membranous. Color may vary from cream to black.	Hyphae delicate, branching, septate. Pyriform, oval conidia borne laterally or in groups from ends of lateral branches. Become round and thick-walled in old cultures.	Small, Gram-positive, cigar-shaped bodies within cells or within giant cells.	Skin, systemic.	Rat.	Sporotrichosis.
Streptomyces	Slow growth. Wrinkled colony becomes covered with fine chalky white surface. Distinct musty odor.	Long, slender branching hyphae. Spores produced by segmentation of terminal branches of hyphae.				
Syncephalastrum	Dense, cottony aerial mycelium. At first white, then dark gray.	Long chains of spores formed in long tubular sporangia. Sporangia formed on short branches of hyphae with swollen tip.				
Trichoderma	Rapidly growing colony covers agar with thin growth in 5 days. Compact wooly tufts of white mycelium appear gradually forming dense mat which becomes green when conidia appear.	Short, irregularly-branched conidiophores. Single-celled, spherical conidia in clusters at ends of conidiophores.				

TABLE I. CHARACTERISTICS OF FUNGI—CONTINUED

Fungus	Growth on Sabouraud's Medium	Microscopic Characteristics	Appearance in Tissues	Tissue Attacked	Susceptible Animals	Disease Produced
Trichophyton mentagrophytes	Colonies powdery to granular, light buff to rose-tan in color. May vary from fluffy, cottony type to velvety and pure white. Reverse of colony is wine-colored to brownish.	Numerous microconidia. Coils, nodular bodies, chlamydospores. Few macroconidia.	Hair: Arthrospores arranged in parallel rows outside the hair (ectothrix). Skin and nails: segmented, branching mycelial elements.	Scalp, beard, glabrous skin, nails.	Rabbit, guinea pig, dog, cat.	Kerion of scalp, Tinea sycosis, Epidermophytosis, Onchomycosis.
Trichophyton rubrum	Colonies cottony to velvety, sometimes powdery. Reddish to purple color on reverse of colony. Aerial mycelium sometimes becomes pink in old cultures.	Numerous microconidia. Few macroconidia, chlamydospores, racquet hyphae, and nodular bodies.	Hair: arthrospores arranged in parallel rows inside the hair (endothrix). Skin and nails: segmented, branching mycelial elements.	Glabrous skin, nails.	Guinea pig, rabbit.	Epidermophytosis Onchomycosis.
Trichophyton schoenleini	Colonies at first heaped, glabrous and cerebriform. Yellowish-white to brown in color. On transfer, surface becomes velvety, heaped and wrinkled with many radiating grooves.	Hyphal swelling. Numerous chlamydospores. "Favic chandeliers."	Hair: arthrospores arranged in parallel rows inside the hair (endothrix). Skin and nails: segmented, branching mycelial elements.	Scalp, skin, nails.	Mice.	Tinea favosa.
Trichophyton violaceum	Colony at first heaped, folded, glabrous and waxy. Violet in color. Later becomes velvety as aerial mycelium develops.	Hyphal swelling. Numerous chlamydospores. "Favic chandeliers."	Hair: arthrospores arranged in parallel rows inside the hair (endothrix). Skin and nails: segmented, branching mycelial elements.	Scalp, beard, glabrous skin, nails.	Guinea pig, dog, cat.	Tinea capitis, Onchomycosis Tinea sycosis, Tinea of glabrous skin.
Verticillium	Rapidly growing colony is at first white in center with thin radial growth which becomes powdery and pinkish-brown in color.	Elliptical, single-celled conidia borne in clusters from ends of elongate, verticillately arranged conidiophores.				

TABLE II

	Control	X-ray 1100 roentgen units	I131 20 microcuries	P32 20 microcuries	Potassium iodide 750 mg.	Potassium iodide 375 mg.	Potassium iodide 75 mg.	Potassium iodide 7.5 mg.	Sulfadiazine 2.5 mg.	Aureomycin 1.25 mg.	Bacitracin 10 units	Chloromycetin 0.625 mg.	Dihydrostreptomycin 10 units	Fumagillin 10 mg.	Fumagillin 5 mg.	Fumagillin 2.5 mg.	Fumagillin 1.25 mg.	Fumagillin 0.625 mg.	Neomycin 2.5 mg.	Penicillin 10 units	Streptomycin 10 units	Terramycin 1.25 mg.
Actinomyces asteroides	—	—	—	—	—	—	—	—	—	I	—	I	I	I	I	I	I	I	I	—	I	I
Alternaria species	—	—	—	—	I	I	—	—	—	—	—	I	—	—	—	—	—	—	I	—	—	I
Aspergillus species	—	—	—	—	I	I	I	—	—	—	—	—	—	I	I	I	I	—	—	—	—	—
Aspergillus niger	—	—	—	—	I	I	—	—	—	—	—	—	—	I	—	—	—	—	—	—	—	—
Blastomyces brasiliensis	—	I	—	—	I	I	I	—	I	—	—	—	I	I	I	I	I	—	—	—	I	—
Blastomyces dermatiditis	—	—	—	—	I	I	I	—	—	—	—	I	—	I	I	—	—	—	—	—	—	—
Candida albicans	—	—	—	—	—	—	—	—	—	—	—	I	—	I	I	I	I	—	—	—	—	I
Cephalosporium species	—	—	—	—	I	I	I	—	I	—	I	I	I	—	—	—	—	—	I	I	I	I
Coccidioides immitis	—	—	—	—	I	I	I	—	—	—	I	—	—	I	I	—	—	—	—	—	—	I
Cryptococcus neoformans	—	—	—	—	I	I	—	—	—	—	—	I	—	—	—	—	—	—	—	—	—	—
Epidermophyton floccosum	—	I	—	—	I	I	I	—	—	—	—	I	—	I	I	I	—	I	—	—	—	I
Fusarium species	—	—	—	—	I	I	—	—	—	—	—	—	—	—	—	—	—	I	—	—	—	—
Geotrichum species	—	I	—	—	I	I	I	—	—	—	—	I	—	—	—	—	—	—	—	—	—	I
Gliocladium species	—	—	—	—	I	—	—	—	—	—	—	I	—	—	—	—	—	—	—	—	—	—
Helminthosporium species	—	—	—	—	I	I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Histoplasma capsulatum	—	—	—	—	I	—	—	—	—	—	—	I	—	—	—	—	—	—	—	—	—	—
Hormodendrum species	—	—	—	—	I	—	—	—	—	—	—	I	—	—	—	—	—	—	—	—	—	—
Hormodendrum compactum	—	—	—	—	I	I	—	—	—	—	—	I	—	I	I	—	—	I	—	—	—	—
Hormodendrum Pedrosoi	—	I	—	—	—	—	—	—	I	—	—	I	—	I	—	—	—	I	—	—	—	I
Microsporum Audouini	—	I	—	—	I	I	I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Microsporum canis	—	—	—	—	I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Microsporum gypseum	—	I	—	—	I	I	I	—	—	—	—	I	—	I	I	—	—	—	—	—	—	I
Monosporium apiospermum	—	—	—	—	—	—	—	—	I	—	—	—	—	I	—	—	—	—	—	—	—	—
Mucor species	—	—	—	—	I	I	—	—	—	I	—	I	I	I	I	—	—	I	—	I	I	I
Nigrospora species	—	I	—	—	I	I	I	I	—	I	—	—	—	I	I	I	I	—	—	—	—	—
Oospora species	—	—	—	—	I	I	I	—	—	—	—	—	—	I	I	I	I	I	—	—	—	—
Paecilomyces species	—	—	—	—	I	I	I	—	I	—	—	—	—	I	—	—	—	—	I	—	—	—
Penicillium species	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phialophora verrucosa	—	I	—	—	I	I	—	—	—	—	—	I	—	I	I	I	—	—	I	—	—	—
Rhizopus species	—	—	—	—	I	—	—	—	—	I	I	—	I	I	—	—	—	—	I	—	I	I
Rhodotorula species	—	—	—	—	—	—	—	—	—	I	I	I	I	—	—	—	—	—	—	I	I	I
Scopulariopsis species	—	—	—	—	I	—	—	—	I	—	—	I	—	I	—	—	—	—	I	—	—	—
Sporotrichum Schenckii	—	I	—	—	I	I	I	—	—	—	—	I	—	I	I	I	I	—	—	—	—	—
Streptomyces species	—	—	—	—	I	I	—	—	I	—	I	I	I	I	I	I	I	I	—	—	I	I
Syncephalastrum species	—	—	—	—	I	I	—	—	I	—	—	I	—	—	—	—	—	I	—	—	—	—
Trichoderma species	—	—	—	—	I	I	I	—	I	—	—	I	—	—	—	—	—	I	—	—	—	—
Trichophyton mentagrophytes	—	—	—	—	I	I	I	—	—	—	—	—	—	I	I	—	—	I	—	—	—	I
Trichophyton rubrum	—	I	—	—	I	I	I	I	—	I	—	I	—	I	I	—	—	—	—	—	—	—
Trichophyton schoenleini	—	—	—	—	I	I	I	—	I	—	—	I	I	I	I	I	—	I	I	I	I	I
Trichophyton violaceum	—	I	—	—	—	—	—	—	—	I	—	—	—	I	—	—	—	—	—	—	—	—
Verticillium species	—	—	—	—	I	I	I	—	—	I	—	—	—	I	—	—	—	—	—	—	—	I

I—represents inhibition of growth.

Upjohn, and a number of other companies. A concentration of 10 units inhibited the growth of Coccidioides immitis, but had no effect upon any of the other pathogenic fungi. Since Bacitracin causes kidney damage in animals when administered systemically, it is used topically only.

Chloromycetin, derived from Streptomyces venezuelae and marketed by Parke, Davis and Company, was used in a concentration of 625 mcg. This antibiotic showed an inhibitory effect *in vitro* on Actinomyces, Blastomyces, Candida, Epidermophyton, Geotrichum, Histoplasma, Hormodendrum, Microsporum, Sporotrichum, and Trichophyton. The toxic effects of this drug are nausea, diarrhea, and urticaria.

Fumagillin, derived from Aspergillus fumigatus, is an experimental drug from the Upjohn Company. It was used in a concentration of 10 mg., which killed E. histolytica in monkeys. Fumagillin inhibited Actinomyces, B. brasiliensis, and Candida albicans. In dogs Fumagillin produces hemorrhages from the intestinal mucosa.

Neomycin, still in the experimental stages, is released by the Upjohn Company and is derived from Streptomyces fradii. In a concentration of 2.5 mg. it inhibited growth of Actinomyces, Cryptococcus, Epidermophyton, Hormodendrum, and Trichophyton. In large doses Neomycin causes tubular degeneration of the kidney in dogs.

Penicillin, derived from Penicillium notatum and marketed by many companies, was used in a concentration of 10 units. It inhibited the growth of Candida, and a Trichophyton. Penicillin rarely produces serious toxic effects, although urticaria is frequently seen as a result of its use.

Streptomycin is derived from Streptomyces

griseus and is produced by several drug companies. A concentration of 10 units was used. Dihydrostreptomycin, which produced the same effects upon the fungi as streptomycin, eliminates the eighth nerve deafness caused by streptomycin. The growth of Actinomyces, Blastomyces and Trichophyton was inhibited.

Terramycin is derived from Streptomyces rimosus and marketed by Charles Pfizer and Company. In a concentration of 1.25 mg. it inhibited the growth of Candida, Coccidioides, Epidermophyton, Hormodendrum, Microsporium, and Trichophyton.

Conclusions

1. In forty-one fungus cultures checked *in vitro* for sensitivity to various therapeutic agents, it was found that the growth of these fungi was not affected by 1100 roentgen units of high voltage x-ray or tracer doses of radioactive iodine and phosphorus. Potassium iodide solution had no marked effect on fungus growth *in vitro* in concentrations higher than would be expected in blood levels. Of the antibiotics tested *in vitro*, Chloromycetin, Neomycin and Terramycin showed more promise than Aureomycin, Bacitracin, Fumagillin, penicillin, or streptomycin.

2. Combinations of these agents were not tested.

3. The characteristics of the fungi are presented in chart form.

The authors wish to express their thanks to the Upjohn Company, Kalamazoo, Michigan, for the Neomycin and Fumagillin used in these experiments.

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MSMS

OLD-AGE AND SURVIVOR'S INSURANCE

On August 28, 1950, the Social Security Act was amended to extend coverage and increase benefits. Federal Old-Age and Survivor's Insurance was extended on a compulsory basis to about 7.7 million persons and to possibly two million others (self-employed) depending on whether or not certain steps are taken. About 45 million workers will be covered by the expanded OASI program. Another 7.5 million are under other public retirement systems. Only about 10 per cent of the nation's 60 million paid workers still do not have systematic retirement protection under a public program (self-employed farmers and self-employed professional persons, and farm and domestic workers who are not "regularly" employed). A new benefit formula provides for an average increase in present benefits of 77.5 per cent. This will raise the average husband and wife monthly benefit for aged couples now on the rolls from $41 to about $75. Among the amendments were the addition of a new category of public assistance—aid to the permanently and totally disabled—and greater Federal participation in the program aiding dependent children.

An incidental effect of the Social Security Amendments of 1950 has been seen in negotiations over pensions. Originally it was claimed that increased Federal OASI benefits would cut down the employer's share of pension costs. What has happened is that in a number of cases the employer's costs have been held constant while total benefits have risen. (Cf. Ford, General Motors.)

The future would seem to hold further increases in social security benefits. Price Stabilizer DiSalle has called for greater benefits as one way of meeting the spiraling cost-of-living. The Social Security Administration proposes: (1) A comprehensive, basic national system of contributory social insurance; (2) complete coverage of all gainful workers; (3) protection against income loss in periods of sickness and disability; (4) social insurance against the costs of medical care; (5) a public assistance program able to meet satisfactorily all the residual and specific needs; (6) expanded health and welfare services for children; (7) a strong credit union program.

STATE DISABILITY INSURANCE

Thirty-four bills to establish cash sickness or disability compensation programs have been introduced this year in fourteen of the state legislatures and in Alaska. The most common pattern (followed in fifteen bills) calls for state monopoly as in Rhode Island. Optional carrier provisions as in New Jersey and California are called for in ten bills. Only nine bills imitate the New York all-private system.

We have noted an increasing trend towards coverage under private plans in both California and New Jersey. Estimates of the number of workers covered under the State plan in California show a decrease of almost 28 per cent, dropping from almost two million in 1947 to 1.4 million in 1949. Meanwhile, coverage under the voluntary plan increased from 554,500 to 1,093,100. In New Jersey, the number of workers covered by private plans has increased each quarter until at the close of 1950, approximately 70 per cent of the employed covered workers were under private plans in lieu of the State plan.

HEALTH INSURANCE HIT

Here and there a state legislature continues to memorialize Congress to vote against compulsory health insurance. The Massachusetts Legislature is the latest. During the past year the Legislatures in Kentucky, Louisiana and Mississippi took this stand, and previously those of Alabama, Arkansas, Delaware, Florida, Illinois, Maryland, Michigan, Nebraska, Tennessee, Texas, Utah, and Virginia.

The proposal of a national system of medical care insurance is a Truman Fair Deal project. Last year the Democratic National Committee endorsed the plan. But the Democratic state administration in Massachusetts gave it no support when the resolution opposing it came up in the Legislature. Although introduced by a Republican, it went through on a voice vote without debate.

If there was any substantial sentiment for government medical insurance among the Democrats of Massachusetts, this could not have happened. Of the other fifteen states from which protests have emanated, a number are Democratic strongholds. Evidently there is no widespread enthusiasm for compulsory health insurance among the rank and file of the Democrats. Certainly no wave of fervor such as is necessary for the passage of such a revolutionary measure has developed.—*The Christian Science Monitor*, April 25, 1951.

Doctors and Dollars

(Continued from July Issue)

By Henry C. Black and Allison E. Skaggs

Battle Creek, Michigan

AS POINTED out in our previous article on professional incomes and expenses, the personal spending habits of our doctors are extremely important to most of them for two very good reasons:

First, the "ordinary and necessary business expenses" in connection with the production of income are deductible in the computation of income tax, and any reduction of business expenses affects net income after taxes less than a corresponding reduction of non-deductible items. This is particularly true in the high income brackets.

Second, the erroneous impression of extremely high incomes commonly supposed to be enjoyed by the physician seems not to be limited to the lay public, but rather is sometimes manifest in the thinking of the physician himself, probably due to his difficulty in identifying "take home" pay. This may be because he actually handles substantially higher amounts of money than do many with equivalent incomes. The difficulty in budgeting personal expenditures when the income is so variable adds to the problem, and we believe the following table, giving averages of the actual spending of Doctors in the various income groups should be interesting to all:

SPENDING AND SAVING OF DOCTORS

In 1950 (in Dollars)

Annual Income	Living Expenses	Per cent of Income	Life Insurance	Per cent of Income	Savings (Net Gain)	Per cent of Income
10,000	6,700	67	1,000	10	1,630	16
15,000	7,800	52	1,400	9	3,600	20
20,000	10,000	50	1,750	9	4,500	23
25,000	11,000	44	2,100	9	6,200	25

The above is an abbreviation of a very complete set of figures we worked out from the experience of over 300 Doctors in 1950. Because the majority of our figures fall within these income groups, we have omitted the extremes. Actually we have information on substantially higher incomes as well as for incomes much lower. The percentages in the extremely high brackets, however, bear less relationship to income, and actually there are a higher proportion in the higher incomes who, after taxes, have difficulty in saving anything at all.

Now that you have had an opportunity to compare your own experience with the table, you should be interested in the trends in spending. The total spent by all our Doctors for living expenses (not including interest, taxes, contributions, or life insurance) increased nearly 15% in 1950 as compared with 1949, while the published cost of living increase was much less. How much of this was the result of scare buying during the last half of the year is not clear; no doubt some of it represented the earlier than normal replacement of household appliances, furniture, etc., or even the addition of new items not previously owned and normally not anticipated at that time.

The fact remains, however, that with increases in income taxes, and the drop already experienced in the purchasing power of the dollar, the Doctor faces a diminishing net gain. This makes it more and more important that he be just as *currently* informed regarding his personal expenditures as he is with his professional business; that he re-evaluate his spending, not so much to reduce it "per se" as to get value received for it; that he take his family into his confidence, at least as far as his living expenses, life insurance and estate are concerned; and that they select the things they feel are worthwhile, avoiding unnecessary spending for those things which cost more than they are worth. To do otherwise is to delay the retirement program which, with present taxation, is so difficult to maintain, yet for which at present no substitute is available.

As we have repeatedly pointed out in this journal, the use of good counsel in matters of this kind is just as important to the Doctor as is the use of good medical advice on the part of the patient. The frequently recommended (but too infrequently followed) advice to practice preventative medicine is just as applicable in the sound conduct of the family saving program and we believe time spent keeping well informed in this field will pay dividends and assure progress.

Roll Call

The Eighty-sixth Annual Session of the Michigan State Medical Society at Grand Rapids will be called to order in September. Have you or your county medical society prepared those items of business about which you were disturbed at the first of the year? Have your resolutions been prepared in triplicate? Have you anything constructive to offer concerning insurance, medical education, cults, public relations, dues, constitution and by-laws, basic science act and medical registration laws?

Are there younger members who should be put to work in some phase of our State Society activities? If so, have these names been submitted to President-elect Otto O. Beck, M.D., for use in naming his committees? In the difficult years immediately confronting us, leadership will be at a premium. We must have men who recognize that our danger does not lie in Red China or some other country of the Far East. They must see that inflation and loss of moral integrity here in the U.S.A., allowed to flourish because of apathy, is going to be our ruination. Our medical leaders must believe that we can bring about a revolt on the part of the voting American public to the end that bureaucrats and political parasites will be replaced. If we expect the respect of our youth, we must remove government control from the hands of gangsters, hoodlums and corruptionists. We must really live the principles we have so glibly taught.

In addition to one's responsibility to an ailing government, we are also charged according to law with knowing what is good medical treatment for the community in which we live. The MSMS Annual Session with its scientific and technical exhibits, formal assemblies, sectional meetings, movies, round-table discussions, information on armed services, on public health and voluntary health insurance, as well as what is new in scientific magazines and books, should be our quickest means of keeping abreast of our rapidly changing armamentarium of medical care.

Our place of meeting is ideally situated. Grand Rapids has excellent facilities. The local doctors are most hospitable and are doing everything they can to make our session a most enjoyable and instructive one. Let us respond by making it the biggest and best meeting so far recorded in the annals of the history of the Michigan State Medical Society.

Doctor, will YOU be at your State Society's 86th Annual Session next month?

C E Umphrey M D

President, Michigan State Medical Society

President's



Message

Editorial

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

MICHIGAN SOCIAL WELFARE COMMISSION

SOME MONTHS AGO the Michigan Social Welfare Commission asked The Council of the Michigan State Medical Society to appoint a medical advisory committee to meet with the Commission and help iron out several medical and socio-economic problems. A committee was appointed and several meetings were held. After the second meeting the committee was established as a permanent committee including officials of the Commission and the Director of the Department of Social Welfare.

One specific problem was referred to this committee, and to a joint committee of Michigan Hospital Service and Michigan Medical Service. The Commission is responsible for the care of about two hundred thousand beneficiaries of old age assistance, aid to the blind, aid to dependent children and aid to the totally disabled. It has been hoped that some method could be worked out whereby these beneficiaries could be cared for under Blue Cross and Blue Shield. Under the Michigan law the Commission must pay the cost of these services to the individual in increased allowances each month. So no solution seemed possible.

The Blue Cross-Blue Shield offered to take care of these people for the Social Welfare Commission on the same terms as for the Veterans Administration, a prepayment plus a percentage for administration basis. This could not be done, so the Advisory Committee of the Michigan State Medical Society suggested that an attempt be made to modify the law.

Michigan Public Act No. 264 contains a provision that payment of recipients is changed to permit the State Department of Social Welfare to contract for either the cost of hospitalization or medical care or both for recipients and pay the costs direct to the contractor. Under provisions of federal administration the Commission is not permitted to consider the individual doctor as a contractor and pay him direct, but can pay Blue Cross-Blue Shield, or the county medical society.

As our members who have cared for some of these beneficiaries of the Department know, the present routine is for the patient to select his doctor, the doctor makes a written estimate of what the services will cost for a month, or for the period of the illness. The Commission then makes a small addition to the monthly stipend for the patient, and the patient is expected to take that money to the doctor. This procedure has been unsatisfactory for several reasons, one of which is that frequently the doctor does not get his money, the recipient having used it for other purposes.

Under the new program, the Commission is willing to pay direct to the County Medical Society. We believe a method satisfactory to all can be worked out. That has been set as a future problem for this Advisory Committee. If successful, this will have been a very satisfactory work, and better attention will have been assured the recipients.

BLUE SHIELD ADVERTISING

HAVE WE FAILED? For several years talks have been given to the graduating classes of the University of Michigan Medical School and Wayne University Medical School by representatives of the Michigan State Medical Society, extension lectures on medical practice, the work of the medical societies and the economic and professional relations. At the close of the last lecture at Wayne, one of the students remarked: "I have had the Blue Cross and Blue Shield protection during my student days, and hope to continue after graduation, but just found out that this is a service organized and sponsored by the Medical Society. We have been told that individually the public loves their doctors, but have no use for the organized medical societies, being suspicious of them. If the public could understand that this Blue Shield protection which they value so highly is a part of the Medical Society activities, the opinion would undergo a great change."

The Blue Shield has been extensively advertised

for years, but evidently publicity of the organization and sponsorship has been neglected. The Society may well be proud of its achievements in establishing our Blue Cross-Blue Shield plans. The public, in ever-increasing numbers, is taking advantage of the prepayment plan, as evidenced by the report as of May 31, 1951 of 2,302,616 subscribers. Now if we can convince the same public that in using Blue Cross-Blue Shield they are sponsoring the private and independent American way, we may have also succeeded in entering a sizable wedge into the plans for socializing the profession and the whole people.

The voluntary non-profit prepayment plans for medical care, the Blue Cross-Blue Shield, are fundamentally sound, are American, and are our best bulwark against government compulsion.

BLUE CROSS-BLUE SHIELD MONTH—SEPTEMBER, 1951

THE BLUE CROSS-Blue Shield have announced a state-wide community sales campaign for September, the month designated as Blue Cross-Blue Shield Month. The two voluntary prepayment service plans have been sold by group subscriptions with a limitation of the percentage of each group which must join if the contract is to be written. This was necessary for two reasons. At first there were no actuarial experiences or figures upon which to predicate an insurance program to cover services which could be estimated only approximately. The voluntary plans were bold enough to attempt this program, and develop experience; secondly, one of the most used criticisms of the voluntary plans has been that just anyone could not join. There must be a natural group.

Now with eleven years' experience and with a large proportion of the state covered, it is possible to carry on a restricted sales program. The sale will be open just during the advertised number of days. All possible publicity will be given, and any one who is eligible will be accepted. We hope that persons who know they will soon be liable to large health bills will be sufficiently overpowered by numbers of ordinary citizens so that the insurance risk will be a fair one. However, the sales will be open during the month of September, and any patient of any of our doctors who asks for information should be encouraged. If our members would take down such names with addresses and send them to the campaign headquarters, or to the home office, Washington Boulevard Building, 234 State Street, Detroit 26, they would be rendering a service not only to their patients, but to the whole program.

This program of Blue Cross-Blue Shield, the voluntary nonprofit medical and hospital service plans, is very peculiarly our own baby. MSMS conceived and "borned" it, and we are responsible for it. The administration is strictly in the hands of professional men with just enough sacrificing, able laymen to give us the skills needed, outside of the medical and hospital fields, for economic and administrative service. The wonderful financial standing of our two plans is a testimonial to the high quality of the advice we have had.

Let us all give our best in this sales campaign. Remember: September, 1951 is Blue Cross-Blue Shield Month.

INFECTIOUS DIARRHEA

INFECTIOUS diarrhea of infants has appeared in many of the hospitals of our state for the past several years. When such an infection strikes, and several babies are lost, the best efforts of the profession are instantly available, and studies put in motion to determine the cause, and the relief. Years ago the Michigan State Medical Society established a Committee on Infectious Diarrhea to study the subject and to suggest methods of avoiding the infection. Progress is being made, and the committee has designated its members to prepare papers to be published in THE JOURNAL MSMS.

The first of these articles by R. M. Kempton, M.D., Saginaw, appeared in the July number, page 743, and we urge all our members to read it carefully. Five different articles are in process of completion, and we hope they will appear in successive numbers of THE JOURNAL. When all are published, they will be used in co-operation with the Michigan Department of Health to make a brochure on Infectious Diarrhea for distribution to all the members of the Michigan State Medical Society.

THE CHURCH AND SOCIALIZED MEDICINE

"STATE MEDICINE O.K.'d BY POPE"

"VATICAN CITY, JULY 19. Pope Pius XII strongly favors socialized medicine, one of his secretaries said today.

"Msgr. Giovanni Battista Montini, Papal secretary for ordinary ecclesiastical affairs, said that the Pope gives

socialized medicine his support because he believes 'only the states have the means for a more universal and effective action.'

" 'Just health legislation, all the efforts to insure healthy homes, to make available for everyone the resources of medicine, to fight such social scourges as tuberculosis and cancer, to look after the health of young generations, all these initiatives help to insure the prosperity of a people and its internal peace,' Montini said."

THIS NEWS ITEM which appeared in the papers throughout the nation, was promptly called to our attention. To put it mildly, we were amazed because we know the Catholic Church is opposed to Socialism and Communism. Socialized medicine is one phase of these political philosophies.

We are happy to quote the follwing editorial which appeared in the *Michigan Catholic* for July 26, 1951. It gives a complete reply to the loose reporting quoted above and a specific exposition of the position of the Church and the Pope on this subject:

POPE DID NOT INDORSE SOCIALIZED MEDICINE

"WORDS ARE RAZORS—be careful how you use them!"

An old Jesuit philosophy professor gave us that advice many years ago. We'd like to pass it on now to the news writers and editors who wrote and handled that "Pope Indorses Socialized Medicine" news story in the daily papers last week.

The fact is that the Holy Father did NOT indorse socialized medicine in that letter of greeting sent to the president of France's Social Week congress meeting at Montpellier. The general theme of the congress was "Health and Society: Biological Discoveries and Social Medicine in the Service of Society."

NOTE CAREFULLY the words "social medicine." It was the word "social" that threw those undiscriminating reporters. "Social" is quite different from "socialized," even though both have the same root.

Note further the words "in the service of humanity." They should have flagged off the carelss word slingers from taking the Vatican secretary's letter into the "socialized medicine" detour. They did warn off the more careful reporter for our National Catholic Welfare Conference News Service. Our correspondent didn't use the scare tag "socialized medicine" in his dispatch (which *The Michigan Catholic* carried on page 14).

Our correspondent's dispatch reported the Vatican letter "made specific reference to 'the growing intervention of public authorities in the field of health.' It (the letter) quoted from a Papal address to Catholic doctors, which reminded the doctors that medical ethics must derive their highest principles from Christian tenets and not from 'considerations of a materialistic and naturalistic philanthropy.' "

Several important distinctions are made there. "Public authorities' intervention in the field of health," in this context, is SOCIAL medicine, not "socialized." Furthermore, the Vatican letter said, this social medicine's ethics "must derive its highest principles from Christian tenets and NOT from . . . a materialistic and naturalistic philanthropy."

Socialism is just such a "materialistic and naturalistic" philosophy; and socialized medicine, in the most accurate meaning of the term, is a philanthropic manifestation of materialism and naturalism.

The Vatican letter goes even further to make the distinction crystal clear:

"While nobody disputes the State's right and duty to be concerned with matters of public health, these SOCIAL achievements in real security, MEDICINE and assistance must conform to MORAL principles . . ." (Emphasis supplied).

SOCIALISM has no time or place for religion or moral principles. It follows then, indisputably, that if the Vatican does not dispute the State's right and duty to be concerned with matters of public health" and, if it insists that "these social achievements in . . . medicine must conform to moral principles," then to report, as was reported in the daily press, that the "Pope indorses socialized medicine," is just plain cockeyed reporting, carelessness with "razor" words.

ON THE RUN . . .

Surgical intervention for ruptured intervertebral disk is urgent only for uncontrollable pain or severely impaired nerve function.

. . .

Function becomes manifest only as the structures concerned mature.

. . .

Atropine to counteract overactivity of anticholinesterase compounds should be given intramuscularly in fairly large doses, 2 mg. hourly until atropinization occurs.

. . .

Juvenile arteriosclerosis is produced by hypertension resulting from kidneys that are either undeveloped, contracted, cystic or glomerulonephritic.

. . .

Edema fluid has a lower cholesterol content (14 to 17 mg. per cent) when produced by congestive heart failure and by venous block than by lymphatic block (average 175 mg. per cent).

. . .

Laboratory tests indicate that antihistaminic compounds such as pyribenzamine inhibit the growth of pathogenic fungi.

. . .

Myocardial infarction has a 50 per cent higher mortality rate in women than in men.

. . .

The correct dose of digitalis is the smallest amount necessary to produce the desired effect, not that which just fails to produce toxicity.

Selected by W. S. Reveno, M.D.

Welcome Doctor!



House of Friendship—
Manned by MSMS Officers

A doctor of medicine, whether he is a member of the Michigan State Medical Society or of any other state medical society, the American Medical Association or the Canadian Medical Association, realizes that he is a most welcome person at any Annual Session of the Michigan State Medical Society.

This "Welcome, Doctor!" is especially true in Grand Rapids where space permits the erection of the famous "House of Friendship" of the Michigan State Medical Society, manned by MSMS Officers during the three days of the Annual Session.

As the registrants file through the House of Friendship, with its spacious porch simulating the "gallery" of a fine southern mansion, they are greeted by members of the Hospitality Committee, all Councilors and Officers of the Michigan State Medical Society. A friendly handshake and a smile greets the doctor of medicine who attends the Grand Rapids Session.

Besides hospitality and welcome, the medical profession of this state, and of neighboring states will hear and see at the 1951 MSMS Annual Session the newest in medical and surgical techniques. Doctors of medicine will listen and ask questions; they will view new apparatus and equipment; all this will result in better trained and better informed healthmen for the people of Michigan.

The program of the 86th Annual Session is replete with medical GREATS from all parts of the United States. Outstanding teachers and clinicians from the nation's largest and finest medical schools and clinics will share their discoveries of the past twelve months with those who are serving in the field of health. A glance at the program as printed in succeeding pages of JMSMS will show that attendance at Grand Rapids is a "must" for the progressive doctor of medicine. Nothing but scientific profit lies ahead for him.

In addition to the didactic lectures and the Discussion Conferences, the exhibit this year will be the largest and finest ever presented. One hundred forty-two (142) spaces will be housed in the exhibit hall of the beautiful and spacious Civic Auditorium, Grand Rapids. A trip through the MSMS exhibit will take the place of several hundred salesmen's calls; the exhibits are designed to save the doctor's precious time.

Doctors of medicine in a state that is pointing the way to other states in progress—a state that is famous for its many "Michigan Firsts"—will discover the finest all-around program when they reach their state medical convention in Grand Rapids, September 26-27-28.

Every doctor who regitsers will be testifying to the sincerity and devotion to duty of Michigan's men of medicine, and to their unquenchable thirst for more education and improvement in their profession.

WOMAN'S AUXILIARY SILVER ANNIVERSARY

The twenty-fifth annual convention of the Woman's Auxiliary to the Michigan State Medical Society will be held in Grand Rapids, September 25, 26 and 27, 1951.

Headquarters for the convention will be in the Pantlind Hotel. Luncheon and dinner meetings will be in the Kent State Room of the Pantlind Hotel, and all general meetings will be held in the Red Room of the Civic Auditorium.

Woman's Auxiliary—MSMS



Dr. Caroline B. Crane†
Kalamazoo
1926

Silver Anniversary

The Michigan State Medical Society salutes its Woman's Auxiliary on the completion of Twenty-five Years of fruitful accomplishment, in behalf of Medicine. The Auxiliary membership, now numbering 2,115, has had the able leadership through the years of the twenty-three presidents pictured on these commemoratory pages.



Mrs. Guy L. Kiefer
Detroit
1927-1928



Mrs. L. J. Harris
Jackson
1929-1930



Mrs. J. Earle McIntyre
Lansing
1931-1932



Mrs. Frank A. Mercer
Pontiac
1932-1933



Mrs. Elmer L. Whitney
Detroit
1933-1934



Mrs. F. T. Andrews†
Kalamazoo
1934-1935



Mrs. A. M. Giddings
Battle Creek
1935-1936



Mrs. A. V. Wenger
Grand Rapids
1936-1937

†Deceased



Mrs. G. C. Hicks
Jackson
1937-1938



Mrs. Paul R. Urmston
Bay City
1938-1939



Mrs. L. G. Christian
Lansing
1939-1940



Mrs. Roger V. Walker
Detroit
1940-1941



Mrs. W. J. Butler
Grand Rapids
1941-1942

Twenty-five years of Auxiliary Service 1926 - 1951



Mrs. G. L. Willoughby
Flint
1942-1943



Mrs. J. G. Walsh
Escanaba
1943-1944



Mrs. H. L. French
Lansing
1944-1945



Mrs. Lloyd C. Harvie
Saginaw
1945-1946



Mrs. Retla Alter
Jackson
1946-1947



Mrs. T. Grover Amos
Flint
1947-1948



Mrs. W. L. Dixon
Grand Rapids
1948-1949



Mrs. Don R. Wright
Flint
1949-1950



Mrs. Oscar Stryker
St. Clair Shores
1950-1951

Michigan State Medical Society

The 86th Annual Session

PANTLIND HOTEL-CIVIC AUDITORIUM

GRAND RAPIDS, MICHIGAN

September 26-27-28, 1951

ANNUAL SESSION INFORMATION

DIRECTORY

Headquarters—Pantlind Hotel-Civic Auditorium, Grand Rapids

Registrations—Civic Auditorium (Exhibit Floor)

Assemblies—Black and Silver Ballroom, Civic Auditorium

Exhibits—Civic Auditorium

Press Room—Parlor F, Civic Auditorium

Woman's Auxiliary Headquarters—Pantlind Hotel

* * *

• **REGISTER**—Civic Auditorium (Exhibit Floor)—as soon as you arrive.

Hours: Tuesday, September 25—1:00 p.m. to 5:00 p.m.
Wednesday, September 26—7:30 a.m. to 5:00 p.m.
Thursday, September 27—8:30 a.m. to 5:00 p.m.
Friday, September 28—8:30 a.m. to 3:30 p.m.

* * *

NO REGISTRATION FEE FOR MEMBERS OF MSMS AND OTHER STATE MEDICAL ASSOCIATIONS, AMA, AND CANADIAN MA. Admission will be by badge only to all Scientific Assemblies, Section Meetings, and Discussion Conferences. Bring your MSMS or other State Medical Association, AMA, or CMA Membership Card to expedite registration.

* * *

• **GUESTS**—Members of any state medical association, AMA, or CMA members from any province of Canada, and physicians of the Army, Navy and U. S. Public Health Service are invited to attend, as guests. No registration fee. Please present credentials at the Registration Desk.

Bona fide doctors of medicine serving as interns, residents, or who are associate or probationary members of Michigan county medical societies, if vouched for by an MSMS Councilor or the president or secretary of the county medical society, will be registered as guests. Please present credentials at the Registration Desk.

* * *

• **MICHIGAN DOCTORS OF MEDICINE,** not members, if listed in the American Medical Directory, may register as guests upon payment of $25.00. This amount will be credited to them as dues in the Michigan State Medical Society FOR THE BALANCE OF 1951 ONLY, provided they subsequently are accepted as members by the County Medical Society in whose jurisdiction they practice.

* * *

• **DOCTORS,** register Tuesday! Registration of physicians will be held Tuesday afternoon from 1:00 to 5:00 p.m.—as well as on Wednesday, Thursday, Friday, during the 1951 MSMS Annual Session. The Tuesday afternoon registration hours are arranged so that physicians may avoid waiting in line Wednesday morning before the opening Assembly.

We recommend to Grand Rapids physicians—and those who arrive in Grand Rapids on Tuesday—that they register Tuesday, September 25, 1:00 to 5:00 p.m., Civic Auditorium (Exhibit Floor).

* * *

• **TELEPHONE SERVICE**—Special lines to handle local and long distance telephone service for registrants at the MSMS meeting will be installed at entrance to Black and Silver Ballroom in the Civic Auditorium, as well as in the Pantlind Hotel. In case of emergency, doctors will be paged from the meetings by announcement on the screen. During meetings call GL 1-9313, GL 1-9751, GL 1-9156. At other hours, call the Pantlind Hotel, 9-7201, or the Registration Desk in the Exhibit Hall, Civic Auditorium, GL 1-9145, GL 1-9405 and GL 1-9738.

* * *

• **CHECK ROOM**—Civic Auditorium.

* * *

• **GUEST ESSAYISTS** are very respectfully requested not to change time of their lecture with another speaker without the approval of the Assembly. This request is made in order to avoid confusion and disappointment on the part of some members of the audience.

* * *

• **PUBLIC MEETING**—The evening Assembly of September 26—Officers Night—will be open to the public. Invite your patients and other lay friends to this entertaining meeting to be held in the Civic Auditorium. Program on page 909.

• **CABARET-STYLE DANCE AND ENTERTAINMENT,** with the compliments of the Michigan State Medical Society, will be held in the Ballroom, Pantlind Hotel, Thursday evening, September 27, at 11:00 p.m. All who register, and their ladies, will receive a card of admission and are cordially invited to attend.

* * *

• **TRANSPORTATION**—The C & O Streamliners afford a convenient means of transportation to the MSMS Annual Session in Grand Rapids for hundreds of physicians located in the central and southeastern parts of the State.

* * *

• **PARKING**—Metered parking on the streets surrounding the Pantlind Hotel and Civic Auditorium. Outside lots are available as follows:

1. Rear of Rowe Hotel (two blocks from Pantlind Hotel).
2. Campau Avenue parking lot (one and one-half blocks from Civic Auditorium).

* * *

• **THE ANNUAL COMMITTEE ORGANIZATION** luncheon, a meeting of the MSMS committee chairmen appointed by President-Elect O. O. Beck, M.D., Birmingham, to serve during the year 1951-52, will be held on Wednesday, September 26, at 12 noon in Room 322-324 (Furniture Capitol Suite) of the Pantlind Hotel, Grand Rapids.

* * *

• **SCIENTIFIC AND TECHNICAL EXHIBITS**—The 143 exhibits will open daily at 8:30 a.m. and close at 5:30 p.m., except on Friday when the break-up is at 3:30 p.m. Frequent intermissions to view the exhibits have been arranged before, during, and after the Assemblies.

* * *

• **POSTGRADUATE CREDITS** are given to every MSMS member who attends the Annual Session.

* * *

• **INFORM YOUR NEWSPAPER EDITOR** that you are attending the Michigan State Medical Society Annual Session in Grand Rapids on September 26-27-28.

* * *

• **REGISTER AT EVERY BOOTH**—There is something of interest or education in the large exhibit of technical and scientific displays. Stop and show your appreciation of the exhibitors' support in helping to make successful the 1951 MSMS Convention.

SECTION MEETINGS—on Wednesday-Thursday-Friday, September 26-27-28, will begin at 12:45 p.m. (after individual luncheons—**no group subscription luncheons this year**).

Section meetings will be held in various rooms listed on pages 907, 911 and 915.

TWENTY-TWO DISCUSSION CONFERENCES

These quiz periods will be held Wednesday and Thursday, September 26-27 at 5:00 to 6:00 p.m. and on Friday, September 28 at 4:30 to 5:30 p.m. An opportunity to ask questions concerning the presentations of the guest essayists, or to discuss one of your interesting cases with them, will be provided.

WEDNESDAY: Discussion Conferences on Dermatology-Syphilology, General Practice, Medicine, Obstetrics-Gynecology, Otolaryngology, Pediatrics, Surgery, Urology (in connection with Pyelogram Clinic).

THURSDAY: Discussion Conferences on Anesthesia, Gastroenterology-Proctology, Medicine, Obstetrics-Gynecology, Ophthalmology, Pediatrics, Public Health & Preventive Medicine, Surgery.

FRIDAY: Discussion Conferences on Dermatology-Syphilology, General Practice, Medicine, Nervous and Mental Diseases, Pediatrics, Surgery.

• **THE MSMS HOUSE OF DELEGATES**—convenes Monday, September 24, at 10:00 a.m., Ballroom, Pantlind Hotel; it will hold three meetings on Monday, September 24, at 10:00 a.m., 2:00 p.m., and at 8:00 p.m.; also two meetings on Tuesday, September 25, at 10:00 a.m. and at 8:00 p.m.

PRE-REGISTRATION OF DELEGATES WILL BE HELD SUNDAY, SEPTEMBER 23, FROM 8:00 TO 10:00 P.M. PLEASE REGISTER IN ADVANCE, TO SPARE YOURSELF STANDING IN LINE MONDAY MORNING.

INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE will be found at the Michigan State Medical Society Annual Session. All subjects on the MSMS Annual Session Program are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

• **J. DUANE MILLER, M.D.,** Grand Rapids, is General Chairman of Arrangements for the 1951 MSMS Annual Session.

PAPERS WILL BEGIN AND END ON TIME

Believing there is nothing which makes a scientific meeting more attractive than by-the-clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time and to close exactly on time, in accordance with the schedule in the program. All who attend the meeting therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

♦ MEETINGS OF SPECIAL SOCIETIES, ALUMNI AND AUXILIARY GROUPS

Wednesday, September 26, 1951

1. **The Detroit Branch of the American Urological Society** will meet on Wednesday, September 26. An Urological Discussion Conference and Pyelogram Clinic is scheduled for Wednesday, September 26, 5:00 to 6:00 p.m. in Room A, Civic Auditorium, Grand Rapids. A reception for guest speaker A. I. Dodson, M.D., of Richmond, Va., will be held at 6:00 p.m. in Dr. William Bromme's suite, Pantlind Hotel, Grand Rapids, followed by dinner in the Schubert Room, Pantlind Hotel, at 7:30 p.m. This is a joint session of the Michigan State Medical Society, the MSMS Section on Urology and the Detroit Branch of the American Urological Association. All registrants are invited to bring pyelograms for review by Dr. Dodson and members of the Section.

2. **The American College of Surgeons Fracture Committee** will hold a dinner meeting at the University Club, Grand Rapids, on Wednesday, September 26, at 6:00 p.m. The Annual Meeting of the Committee is scheduled for 4:30 p.m. on the same day.

3. **The Michigan State Medical Assistants Society** will meet on Wednesday-Thursday, September 26-27 at the Morton Hotel, Grand Rapids. For Program, see page 826, July issue.

4. **The Woman's Auxiliary to the Michigan State Medical Society** will present an attractive social and business program at the Pantlind Hotel, Grand Rapids, to which the wife of every MSMS, AMA and CMA member is cordially invited. For Program, see page 757, July issue.

5. **MSMS Fifty-Year Club.** The Michigan State Medical Society will pay tribute to long-time practitioners those hardy men and women of Medicine who have reached the 50-year mark in their practice). They will be honored in a body on the occasion of Officers Night, Wednesday, September 26, 1951, Black and Silver Ballroom, Civic Auditorium, Grand Rapids.

Thursday, September 27, 1951

6. **The Michigan Chapter, Arthritis and Rheumatism Foundation** will meet for dinner on Thursday, September 27, Schubert Room, Pantlind Hotel, Grand Rapids, at 7:00 p.m. The dinner will be followed by a business meeting.

7. **The Wayne University College of Medicine Alumni Association** will hold an alumni banquet on Thursday, September 27, at 7 p.m., in the Continental Room of the Pantlind Hotel, Grand Rapids. Alumni, their wives and guests are cordially invited. Tickets will be available at the registration desk.

   An Alumni Headquarters will be maintained at the Pantlind Hotel during the Annual Session.

8. **The Michigan Branch of the Academy of Pediatrics** will meet for luncheon on Thursday, September 27, 12:00 noon, Sadler Lounge, Pantlind Hotel, Grand Rapids.

9. **The American Women's Medical Association, Blackwell Branch No. 20,** will meet for dinner on Thursday, September 27, at 7:00 p.m. in Room 328, Pantlind Hotel, Grand Rapids.

10. **The Michigan Society of Anesthesiologists** will hold its Annual Meeting at the University Club, Grand Rapids, on Thursday, September 27, beginning with cocktails at 6:00 p.m., followed by dinner. Wives of members are cordially invited to attend.

11. **The Michigan Proctological Society** will meet for cocktails at 6:00 p.m. and dinner at 7:00 p.m. in Furniture Capitol Suite, Pantlind Hotel, Grand Rapids, on Thursday, September 27.

12. **The Michigan Chapter, American College of Surgeons** will meet on Thursday, September 27, at 6:00 p.m. in the Black and Silver Ballroom, Civic Auditorium, Grand Rapids.

13. **The Michigan Diabetes Association** will hold a dinner meeting in Room 327, Pantlind Hotel, Grand Rapids, on Thursday, September 27, 7:00 p.m.

14. **The Michigan Chapter of the American College of Chest Physicians** will meet on Thursday, September 27, for dinner at 7:00 p.m. in Room 323, Pantlind Hotel, Grand Rapids, followed by a scientific meeting in Room 222. The program for the evening will be: A symposium on "Chest Pain." A cardiologist, neurologist and thoracic surgeon will make up the panel.

15. **The Loyola University Alumni Association** will hold a dinner meeting at the Pantlind Hotel, Grand Rapids, on Thursday, September 27, at 7:00 p.m. in the Sadler Lounge.

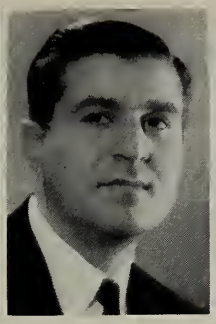
Friday, September 28, 1951

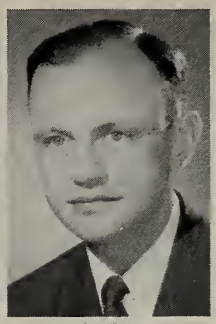
16. **The American Academy of General Practice of Wayne County** will hold a short business meeting in the Kent State Room, Pantlind Hotel, Grand Rapids, on Thursday, September 27 at 8:00 p.m. All members are urged to attend.

17. **The Michigan Pathological Society** will meet on Friday, September 28, Schubert Room, Pantlind Hotel, Grand Rapids. A seminar is scheduled for 3:00 p.m. followed by dinner at 6:30 p.m. in the Schubert Room, Pantlind Hotel, Grand Rapids, and a short business meeting. The subject for the seminar is "Lesions of the Nervous System." Guest speaker will be J. W. Kernohan, M.D., of Rochester, Minnesota.

MSMS Guest Speakers


A. H. Aldridge


N. S. Assali


A. C. Barnes


S. W. Becker


W. P. Blount

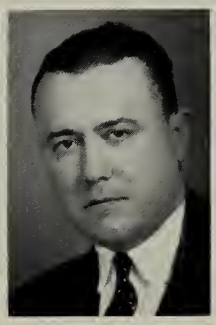

O. T. Clagett


A. I. Dodson

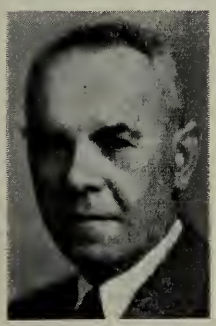

C. R. Doyle


R. V. Ebert


T. V. Hoagland

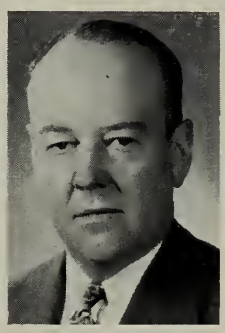

A. J. Horesh


Sara M. Jordan


J. W. Kernohan

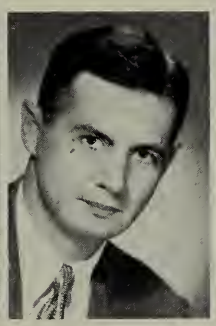

D. B. Kirby

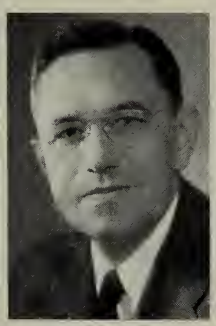

T. T. Mackie

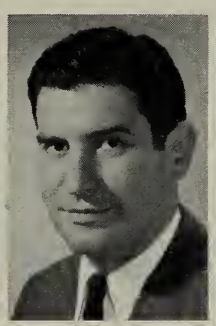

Clarence Manion

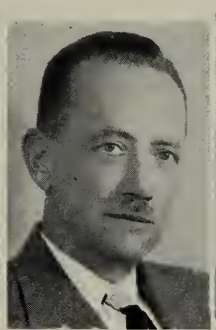

Alexander Marble


John Martin


C. A. Moyer


W. S. Nelson


E. M. Papper


W. J. Potts


R. D. Pruitt


R. A. Reis


Stephen Rothman


E. L. Sevringhaus


R. H. Smithwick


F. H. Top


H. L. Williams

Michigan State Medical Society

The 86th Annual Session

PROGRAM OF ASSEMBLIES AND SECTIONS

WEDNESDAY MORNING

September 26, 1951

First Assembly

Black and Silver Ballroom, Civic Auditorium, Grand Rapids

Chairman: W. D. Barrett, M.D., Detroit

Secretary: D. I. Sugar, M.D., Detroit

A.M.
9:00 **"Surgical Measures in the Management of Hypertensive Cardiovascular Disease"**

Reginald H. Smithwick, M.D., Boston, Massachusetts

Surgeon-in-Chief Massachusetts Memorial Hospitals, Boston; Professor of Surgery, Boston University School of Medicine.

The principal surgical measures which have proved helpful in the management of hypertensive cardiovascular disease are the removal of physiologically active tumors of the adrenal medulla and cortex, unilateral nephrectomy and splanchnicectomy. Splanchnicectomy is the most widely applicable surgical procedure. The mortality and survival rates for patients who have undergone splanchnicectomy will be compared with those for comparable patients who have not been operated upon. The surgically treated patients have fared much better. The selection of patients for splanchnicectomy will be discussed in detail. The value of combined surgical and medical treatment will be emphasized. The circumstances under which partial or subtotal adrenalectomy should be employed in addition to splanchnicectomy will be commented upon briefly.

9:30 **"Peptic Ulcer—Complications and Treatment"**
Sara M. Jordan, M.D., Boston, Massachusetts

Director, Department of Gastroenterology, Lahey Clinic.

The severity of peptic ulcer depends to a considerable degree on the question of whether or not there are complications. The commonest complications of ulcer of the stomach or duodenum are hemorrhage, perforation, and obstruction. About one-fifth of all ulcers have such complications.

From the point of view of urgency, hemorrhage and perforation are the two more serious complications. Hemorrhage may be very mild, but it may also be so massive that unless checked by immediate surgery, it may be fatal. The number of hemorrhages which have occurred in the history of the patient is also important since the outlook for future hemorrhages is influenced by the past history. The patient with a single hemorrhage, if well treated medically, is more likely not to have recurrence, while cases with multiple hemorrhages are much more difficult to control, even with radical surgery.

Perforation may be acute and result in dramatic symptoms, including very severe pain and evidence of collapse; or it may be chronic, resulting in a localized walled-in abscess. The acute and sudden type is more common and requires surgery as quickly as possible.

An obstruction often occurs from the healing of an ulcer in the duodenum, and may be due entirely to scar tissue, in which case, if it is severe, it becomes necessary to have relief by means of surgery. Obstruction may also, however, be due to inflammatory changes which cause narrowing of the intestine, and in such case the healing of the ulcer without recourse to surgery often results in the relief of obstruction. Various diagnostic measures may be used to distinguish between these two types of obstruction.

In addition to these three complicating factors in peptic ulcer, there is also added the so-called intractable ulcer, a term which means that by no medical means can this ulcer be healed. It is important for the diagnostician, however, to recognize the fact that there are actually three types of intractability: (1) the intractable patient with the tractable ulcer—and in these cases treatment of the patient as well as of the ulcer is all important; (2) the intractable ulcer in the tractable patient—and in this group surgery is required; and finally, the intractable ulcer in the intractable patient, and this constitutes the most difficult group to treat, both medically and surgically.

Another complication which should be mentioned because it occurs sometimes in the ulcer which is located in the stomach itself, is malignant change. This does not occur in duodenal ulcers, where the majority of ulcers are found, but only in gastric ulcers. It is estimated that about ten per cent of ulcers which occur in the stomach itself become malignant unless removed surgically. It is very important from the point of view of early detection of cancer to differentiate between (1) the benign ulcer which will remain benign and heal; (2) the benign ulcer which may become malignant or which is already undergoing malignant change; and (3) the malignant lesion which has the appearance of an ulcer.

From this brief outline of the description of the complications of ulcer, it can be concluded that the best treatment of ulcer is its early detection, intensive management to produce healing, and the maintenance of healing so that these complications will not occur.

10:00 **INTERMISSION TO VIEW EXHIBITS**

11:00 **"Prolonged Labor"**

Ralph A. Reis, M.D., Chicago, Illinois

Professor of Obstetrics and Gynecology, Northwestern University.

Prolonged labor is defined as labor as lasting over twenty-four hours after cervical affacement and dilatation begin. It occurs in 3 to 5 per cent of all labors. If untreated, it results in maternal exhaustion and dehydration, increases the incidence of maternal infection and hemorrhage and results too frequently in maternal and fetal trauma and death. The diagnosis is made after an arbitrary number of hours with failure of progress expected in the individual patient. Its causes are (1) mechanical, i.e., feto pelvic disproportion due to too large a baby, too small a pelvis, malpresentation or malposition (breech, brow, face, occiput posterior, et cetera) or (2) functional. This latter means uterine inertia which can be secondary to mechanical causes or primary in nature.

Cervical causes of prolonged labor are so rare as to be almost mythical. The treatment of prolonged labor consists in (1) an accurate diagnosis and evaluation of the particular problem at hand, (2) protection against exhaustion, infection, dehydration and hemorrhage, (3) prompt decision as to advisability and safety of abdominal delivery, vaginal delivery or the continuation of labor. Uterine inertia requires adequate time, maternal support and sedation for rest followed by stimulation of uterine contractions. Intravenous glucose solution containing pituitrin M X per 1000 cc. and administered at the rate of 50 drops per minute yield excellent results when certain definite precautions are taken. This will be outlined in detail.

11:30 "Neurodermatitis (Atopic Eczema)"

STEPHEN ROTHMAN, M.D., Chicago, Illinois

Professor and Head of the Section of Dermatology and Syphilology, Department of Medicine, University of Chicago.

This disease starts in more than 80% of the cases in infancy. With shorter or longer intermissions it may last throughout life but in some cases it fades out after puberty and does not recur again. It has a dry and an exudative form. Individuals suffering from this condition have certain somatic and psychic stigmata which appear to be constitutional traits rather than causative factors. Such traits are: abnormally high itching hyperexcitability in response to peripheral and central stimulation; abnormal fragility of the epidermis in the exudative form; great tendency to development of lichenification in response to rubbing and scratching in the dry form, multiple dermal allergic sensitivities unrelated to the skin disease; averse effect of humidity of the atmosphere; beneficial effect of dry warm sunny climate and of ultraviolet light exposures; emotional instability.

Neither the allergic nor the so-called psychosomatic theory of the pathogenesis explains this disease satisfactorily.

Symptomatology and management will be discussed in detail. Topic applications are chosen according to the stage of the inflammatory process. Acute stages must be treated with bland applications such as dermatologic wet dressings, bland lotions and pastes. Topic use of local anesthetic, antiseptics and antihistamines is not to be recommended because of the very real danger of sensitization. In the subacute and chronic phases, ichthyol, tar and related preparations are used in symptomatic therapy. Economy with x-ray therapy is of utmost significance. Itching hyperexcitability of central origin is counteracted by barbiturates, paraldehyde, bromides and antipyretics. Ultraviolet light irradiations of the whole body surface with suberythematous doses are beneficial in all cases. "Common-sense psychotherapy" will be discussed; it is one of the most effective therapeutic measures.

12:00 END OF FIRST ASSEMBLY

SECTION ON UROLOGY

Room G, Civic Auditorium, 12:45 p.m.

Chairman: C. F. SCHROEDER, M.D., Detroit

Secretary: WILLIAM BROMME, M.D., Detroit

"Plastic Procedures for the Treatment of Hypospadias: A Survey of Sixteen Years' Experience"

AUSTIN I. DODSON, M.D., Richmond, Virginia

Hypospadias is one of the most frequent congenital deformities, occurring once in about every 300 births. It varies from a deformity so slight as to be hardly noticeable to a condition so severe that it may be difficult immediately to determine the sex of the child.

Operations for the correction of hypospadias present two problems: first, scar tissue on the ventral surface of the penis distal to the hypospadiac meatus causing downward curvature of the penis and this must be dissected away to permit normal development and normal function; and second, following this procedure the urethra must be constructed to the end of the penis.

Children with anomalies are likely to develop personality problems. It is, therefore, important that correction of the deformity be completed as early in life as practical. I prefer to remove the scar tissue before the child is two years of age, thereby permitting normal development of the penis. The urethra should be constructed at the age of five or six so that the child will be as nearly normal as possible when he begins school.

Before the urethra is constructed, the urine should be diverted preferably by external urethereotomy to put the area at rest and to aid in the prevention of infection. The method used to construct the urethra is not so important as are the principles underlying plastic surgery. Pedicle grafts are more satisfactory than free grafts. Transplanted tissue often sloughs or is absorbed and, at best, a constricted tube remains which must be repeatedly dilated. A broad pedicle should be left for nourishment of the flaps which should be dissected just far enough to be accurately approximated without tension. The flaps when possible should be from the penis. Absolute hemostasis is important and the control of infection is necessary for good results.

During the past sixteen years, sixty-nine patients have been treated and discharged well. With few exceptions, the methods devised by Thiersch and by D. M. Davis have been utilized. One hundred and sixty-nine operations were necessary for complete relief in these patients.

Program of Sections

(No Luncheons)

WEDNESDAY NOON

September 26, 1951

12:45 to 1:30 p.m.

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Room 222, Pantlind Hotel, 12:45 p.m.

Chairman: H. H. HOLMAN, M.D., Detroit

Secretary: J. R. DELANEY, M.D., Detroit

"Studies on Systemic Disturbances in Recalcitrant Trichophyton Purpureum Infections"

STEPHEN ROTHMAN, M.D., Chicago, Illinois

Although trichophyton purpureum is highly sensitive to fungicides in vitro, in man this infection often is resistant to treatment with the available fungicides and the disease cannot be eradicated. Twelve patients with therapy-resistant T. purpureum infection of palms, soles and nails were found to have unusually flat glucose tolerance curves in both oral and intravenous tests. In an attempt to link these abnormal glucose tolerance curves with the resistance of the fungus infection to fungicides, the following explanation is offered. Flat glucose tolerance curves imply a relatively low average glucose level in the skin and on the skin surface. Fungi thriving on media with low carbohydrate content adapt themselves to such soil by utilizing nitrogenous substances instead of carbohydrates. Fungicides which damage the fungi by interfering with their carbohydrate metabolism are unable to interfere with the adapted metabolism of the fungi. Clinical-therapeutic experiments seem to indicate that thyroid medication corrects to some degree the metabolic anomaly in these patients, and makes the fungus infection amenable to therapy with fungicides.

SECTION ON GYNECOLOGY AND OBSTETRICS

Continental Room, Pantlind Hotel, 12:45 p.m.

Chairman: P. E. SUTTON, M.D., Royal Oak

Secretary: L. C. BOSCH, M.D., Grand Rapids

"Fetal Mortality from Breech Delivery"

ALBERT H. ALDRIDGE, M.D., New York, New York

Statistical reports in the past few years have shown marked reductions in fetal mortality from breech deliveries but fetal loss is still about five times greater than for delivery of babies with vertex presentations. Mortality from breech deliveries is due to prematurity, asphyxia and fetal injuries. The risks of breech delivery can be reduced by modern obstetric procedures. By X-ray studies existence of a breech presentation can be confirmed; the attitude of the fetus can be diagnosed and the exact size and conformation of the maternal pelvis can be determined. In order to predict the outlook for vaginal delivery the obstetrician must combine facts obtained by X-ray with estimation of the size of the fetus. Some breech presentations can be easily converted to vertex by external version. In the presence of obvious or borderline disproportion delivery by Caesarean Section should be considered. If delivery by the vaginal route is chosen, labor should be allowed to progress if possible until the buttocks are delivered spontaneously. The delivery should then be completed with great gentleness, proper anaesthesia and maneuvers which subject the infant to the least trauma. Nothing can contribute more to selection of the most suitable method of delivery for a baby presenting as a breech or to safe conduct of the labor and delivery than mature obstetric experience and judgment.

SECTION ON OTOLARYNGOLOGY

Red Room, Civic Auditorium, 12:45 p.m.

Chairman: R. W. Teed, M.D., Ann Arbor
Secretary: C. G. Wencke, M.D., Battle Creek

"The Medical Treatment of Ménière's Disease"

Henry L. Williams, M.D., Rochester, Minnesota

I have suggested elsewhere that Ménière's disease is the result of autonomic dysfunction resulting in vasospasm of the internal auditory artery and its branches. Such spasm may involve terminal branches to the crista ampullaris, macula utriculi, stria vascularis or cochlea, producing one of the several varieties of Ménière's disease. It is on the hypothesis that Ménière's disease is due to a preponderance of cholinergic activity that medical treatment is based.

For convenience of consideration, the therapy of Ménière's disease is divided into (1) the treatment of the crisis or attack, (2) the treatment of the common form, with both cochlear and vestibular symptoms and treatment of the types with vestibular but without cochlear symptoms, which may be considered together, and (3) the type with cochlear but without vestibular symptoms, called by Wright "cochlear deafness."

THE CRISIS OR ATTACK

White and Smithwick pointed out that drugs which stimulate the sympathetic (adrenergic) or which paralyze the parasympathetic (cholinergic) nerves are effective in relieving the acute clinical expression of vasomotor dysfunction.

MENIERE'S DISEASE WITH ENDOLYMPHATIC HYDROPS AND ENDOLYMPHATIC HYDROPS WITHOUT LABYRINTHINE SYMPTOMS

In cholinergic preponderance arteriolar spasm is associated with dilatation of the arterioles and venules. Anoxia and the liberation of toxic metabolites such as histamine, peptones and the like, produce increased permeability of the capillary loop. When this occurs in the stria vascularis, an increased quantity of endolymph is secreted containing an increased percentage of serum proteins; consequently, a higher colloid osmotic pressure obtains. This increased osmotic pressure results in distention of the endolymph system with increased pressure on the organ of Corti. This is the condition to be combated in the usual patient who has Ménière's disease.

The treatment of this usual type of Ménière's disease will be considered under the following headings: first, the approach to the patient who has Ménière's disease; second, psychogenic factors in Ménière's disease; third, a simple and practical office treatment of Ménière's disease.

MENIERE'S DISEASE WITHOUT COCHLEAR SYMPTOMS (PSEUDO MENIERE'S DISEASE)

Here vasospasm affects the blood supply to the cristae and maculae alone and can best be relieved by the use of vasodilators alone.

WEDNESDAY AFTERNOON

September 26, 1951

Second Assembly

Black and Silver Ballroom, Civic Auditorium, Grand Rapids

Chairman: G. B. Saltonstall, M.D., Charlevoix
Secretary: F. P. Husted, M.D., Bay City

P.M.

1:30 **"Intestinal Obstruction in Infants and Children Due to Congenital Anomalies"**

Willis J. Potts, M.D., Chicago, Illinois

Surgeon-in-Chief, Children's Memorial Hospital; Associate Professor of Surgery, Northwestern University.

The most common cause of intestinal obstruction in the newborn is atresia of the bowel. It may affect any part of the bowel but is most common in the duodenum and ileum.

In the symptomatology of congenital bowel obstruction the most important symptom is vomiting bile. The importance of symptomatology will be emphasized; the physical findings varying with the level of obstruction will be reviewed; and the fluid and electrolyte requirement will be outlined. The use of fine suture material will decrease surgical mortality.

Malrotation of the bowel is an interesting and not unusual malformation causing partial or complete obstruction of the duodenum. If the obstruction is partial it cannot be distinguished from congenital duodenal stenosis.

A few other less common abnormalities will be mentioned briefly.

2:00 **"The Indication for Surgery in the Treatment of Nephroptosis"**

Austin I. Dodson, M.D., Richmond, Virginia

Professor of Urology, Medical College of Virginia: Urologist, St. Elizabeth's Hospital; Urologist, St. Luke's Hospital and McGuire Clinic; Urologist to the Hospital Division of the Medical College of Virginia.

The movable kidney was first described in the fourteenth century by Franciscus de Pdemontanus. In 1841, Royer called attention to the movable kidney as a definite clinical entity causing characteristic signs and symptoms. In 1881, Hand performed the first deliberate suspension of the kidney by suturing the perirenal fat to the lumbar muscles. A year later Bassini improved the operation by removing the fat and suturing the renal capsule to the lumbar wound. During the next quarter of a century nephropcxy was frequently employed for many chronic illnesses particularly for malnutrition, gastrointestinal symptoms and disease of the nervous system. A palpable kidney was the only indication necessary for a nephropexy.

In 1890, W. W. Keene reviewed 134 cases of nephropexy with only 52 per cent cured. Accurate urological diagnosis at that time was unknown, consequently in a large percentage of patients so treated, ptosis had not disturbed the physiology of the kidney and there was no relationship between the abnormal position of the kidney and the patients symptoms. It is not surprising that the results obtained left much to be desired. Grave doubts arose as to the value of the operation and early in the present century the pendulum swung far to the opposite direction.

By the use of modern diagnostic methods it is now possible to evaluate the relationship of nephroptosis to renal pathology and to determine with considerable accuracy the probability of relief by nephropexy.

Although more than one in ten women have abnormally movable kidneys, pathological changes in these kidneys or discomfort requiring surgical relief are infrequent. The degree of mobility has no relationship to pathological changes in the kidney. A kidney that is entirely palpable may be physiologically normal. It is questionable whether mobility alone ever influences the function of the kidney or causes any great degree of discomfort.

Pathological changes in ptosed kidneys and the resulting discomfort are usually caused by interference to renal drainage. Such conditions are found when the nephroptosis is complicated by aberrant blood vessels or adhesions to the perirenal fascia or peritoneum which causes the ureter to kink as the kidney descends. The poor drainage invites infection which once established is rarely eradicated until free drainage is obtained.

Poorly nourished patients with moderate loin and abdominal pain and nephroptosis with minimal dilatation of the renal pelvis are often helped by rest, adequate diet and exercises designed to improve the posture and strengthen the abdominal muscles. When there is persistent or recurring infection or delayed emptying of the renal pelves, relief is rarely obtained until the kidney is fixed in a normal position.

2:30 **"Complete Abdominal Hysterectomy"**

Albert H. Aldridge, M.D., New York, New York

Chief Surgeon, Women's Hospital; Clinical Professor, Obstetrics and Gynecology, Columbia University.

It is now fairly well accepted by gynecologists that complete hysterectomies should be done for most women who have indications for removal of the uterus. The advantages of complete hysterectomy are that troublesome postoperative symptoms due to inflammatory lesions of the cervix are prevented; an occasional unsuspected carcinoma of the cervix is removed; the risk of subsequent development of cervical carcinoma is eliminated and postoperative menopause symptoms are relatively less frequent and less severe than after the subtotal operation. A simplified technique for complete abdominal hysterectomy will be shown. Experience has proved that it reduces the risk of injury to the bladder, ureters and

rectum, that it can be done with a minimum of trauma to strictures about the vault of the vagina and it leaves the vagina well supported and normal as to depth. Finally it is a safe procedure and one which can be readily taught to members of a resident staff.

3:00 INTERMISSION TO VIEW EXHIBITS

4:00 "Physiologic Phenomena Misinterpreted as Rhinologic Disease"

HENRY L. WILLIAMS, M.D., Rochester, Minnesota

Surgical Administrator, Worrall Hospital.

The majority of patients who have a sensation of discomfort in the region of the nose and paranasal sinuses immediately translate it into the complaint of "sinusitis." More unfortunate in its results is the tendency among physicians to accept this conjecture on the part of their patients, and in this way to instil in the minds of such patients two almost unshakable opinions: first, that they have sinusitis; second, that sinusitis is an ill beyond the power of the physician to ameliorate.

It has been estimated that more than 50 per cent of patients presenting themselves to the general practioner have a complaint referable to the upper part of the respiratory tract. Yet despite the importance in general practice of the normal physiologic mechanisms operative in the region of the nose and paranasal sinuses, even the most cursory instruction in these mechanisms occasionally is neglected in medical schools, in favor of attention to supposedly more important major disturbances. This is the more unfortunate because the majority of nasal complaints are based on physiologic alterations that are often reversible. A number of the rest might be termed "therapeutogenic."

In this talk, therefore, the patient's complaint of sinusitis is considered under, first, normal functional changes occurring in the nose misinterpreted as "disease"; second, physiologic alterations referable to the aging process; third, the effect of environment in producing changes in nasal function; fourth, functional alterations produced by the glands of internal secretion; fifth, autonomic dysfunctions affecting nasal physiology; sixth, alterations in nasal function produced by the misuse of drugs; and seventh, anatomic alterations capable of producing nasal symptoms.

I have found that if sufficient attention is given to these points, patients who voice a complaint of "sinusitis" nearly always can be reassured, often comforted and sometimes relieved of their discomfort.

4:30 "The Acute Abdomen"

CHARLES R. DOYLE, M.D., St. Louis, Missouri

The acute abdomen continues to be the most important everyday condition requiring early decision as to treatment. This is true because a missed diagnosis often results in complications which, if not fatal, unduly prolong the illness or even permanently incapacitate the patient. The exact cause of the acute abdomen is almost always less important than making the decision as to whether or not an operation is required. Valuable time may be lost in trying to be too exact so that the patient is literally examined to death. The history and the physical examination are the most important guides as to whether or not the condition is an acute abdomen and requires surgery. Laboratory examinations including x-ray films are important but usually their chief value is corroborative.

An acute abdomen is always accompanied by pain. A careful history should be obtained as to the mode of onset of the pain, its location, severity and the character —steady, intermittent, sharp, cramp-like or aching. Also the history of any changes in the bowel habit are important.

The examination of the abdomen for the location of any tenderness, masses, or collections of air may give valuable information as to the activities of the intestinal movements. If the peristaltic (intestinal) sounds are decreased or absent it may mean peritonitis or hemorrhage into the abdominal cavity. If there is mechanical obstruction, the bowel sounds are increased early but later may disappear if peritoneal (peritonitis) infection occurs. If there are increased bowel sounds with increased activity resulting in diarrhea, a non-surgical condition is more probable. There are many medical conditions which simulate acute surgical conditions of the abdomen. Some of these are pneumonia, pleurisy, acute gastro-enteritis, inflammation of the lymph nodes (glands) of the abdominal cavity, and inflammation of the pancreas, and one of the most common, extrusion of the egg cell from the ovary.

If the above factors are considered carefully, a proper decision can be made without undue delay.

5:00 END OF SECOND ASSEMBLY

5:00 Discussion Conferences on Dermatology-Syphilology, General Practice, Medicine, Obstetrics-Gynecology, Otolaryngology, Pediatrics, Surgery, Urology. (See page 910.)

WEDNESDAY EVENING

September 26, 1951

GENERAL (PUBLIC) MEETING

Black & Silver Ballroom, Civic Auditorium

President: C. E. UMPHREY, M.D., Detroit

Secretary: L. FERNALD FOSTER, M.D., Bay City

P.M.

8:30 OFFICERS' NIGHT—PUBLIC MEETING

1. Call to order, announcements and reports of the House of Delegates by L. Fernald Foster, M.D.
2. Introduction of President C. E. Umphrey, M.D., followed by President's Annual Address.
3. Induction of members into the MSMS "Fifty-Year Club" by President C. E. Umphrey, M.D.
4. Presentation of Scroll of Appreciation by President Umphrey to John W. Cline, M.D., San Francisco, California, President of the American Medical Association.
   Response of Dr. Cline.
5. Introduction of President-elect Otto O. Beck, M.D., Birmingham, and induction of Dr. Beck into office of President of the Michigan State Medical Society by the Retiring President.
   Response of Dr. Beck.
6. Introduction of the new President-elect and other newly elected Officers and of the Chairman of The Council, R. J. Hubbell, M.D., Kalamazoo.
7. Presentation of scroll and Past President's Key to Retiring President Dr. Umphrey by the Chairman of The Council, Dr. Hubbell.

9:15 8. The Andrew P. Biddle Lecture.
"The Key to Peace"

Clarence Manion, J.D., J.U.D., South Bend, Indiana, Dean of the College of Law and Founder of Natural Law Institute, University of Notre Dame.

(30 minutes)



Andrew P. Biddle, M.D.
(Deceased August 2, 1944)
Patron of Postgraduate
Medical Education

9. Presentation of Biddle Lecture scroll.

10:00 10. Adjournment.

Twenty-two Discussion Conferences (Quiz Periods)

Twenty-two Discussion Conferences each with a different chairman—a leader of outstanding ability in his field—will be held Wednesday, Thursday, Friday afternoons, immediately following the end of the Assembly program for the day. Here is your chance to ask questions of the lecturers and to hear discussed medical matters of value to you in your daily practice.

WEDNESDAY, SEPTEMBER 26, 1951
5:00 to 6:00 p.m.

DERMATOLOGY AND SYPHILOLOGY
Room G, Civic Auditorium
Leader
F. R. Menagh, M.D.,
Detroit
Guest Speaker
Stephen Rothman, M.D.
Chicago

GENERAL PRACTICE
Continental Room, Pantlind Hotel
Leader
L. T. Henderson, M.D.
Detroit
Guest Speaker
R. A. Reis, M.D.
Chicago

MEDICINE
Red Room, Civic Auditorium
Leader
E. D. Spalding, M.D.,
Detroit
Guest Speaker
Sara M. Jordan, M.D.
Boston

OBSTETRICS AND GYNECOLOGY
Schubert Room, Pantlind Hotel
Leader
George Kamperman, M.D.
Detroit
Guest Speaker
A. H. Aldridge, M. D.
New York, N. Y.

OTOLARYNGOLOGY
Room B, Civic Auditorium
Leader
J. E. Croushore, M.D.
Detroit
Guest Speaker
H. L. Williams, M.D.
Rochester

PEDIATRICS
Room 222, Pantlind Hotel
Leader
W. C. C. Cole, M.D.
Detroit
Guest Speaker
W. J. Potts, M.D.
Chicago

SURGERY
Black and Silver Ballroom, Civic Auditorium
Leader
C. S. Kennedy, M.D.
Detroit
Guest Speakers
R. H. Smithwick, M.D.
Boston
C. R. Doyle, M.D.
St. Louis, Mo.

UROLOGY
The Urological Discussion Conference will be combined with the Pyelogram Clinic sponsored by the Detroit Branch, American Urological Society.
Room A, Civic Auditorium

THURSDAY, SEPTEMBER 27, 1951
5:00 to 6:00 p.m.

ANESTHESIA
Room 325, Pantlind Hotel
Leader
F. D. Thompson, M.D.
Grand Rapids
Guest Speaker
E. M. Papper, M.D.
New York, N. Y.

GASTROENTEROLOGY AND PROCTOLOGY
Room 323, Pantlind Hotel
Leader
L. J. Hirschman, M.D.
Traverse City
Guest Speaker
T. T. Mackie, M.D.
Winston-Salem, N. C.

MEDICINE
Red Room, Civic Auditorium
Leader
G. B. Myers, M.D.
Detroit
Guest Speaker
Alexander Marble, M.D.
Boston

OBSTETRICS AND GYNECOLOGY
Room G, Civic Auditorium
Leader
R. L. Haas, M.D.
Ann Arbor
Guest Speakers
A. C. Barnes, M.D.
Columbus
N. S. Assali, M.D.
Cincinnati

OPHTHALMOLOGY
Room 222, Pantlind Hotel
Leader
F. B. Fralick, M.D.
Ann Arbor
Guest Speaker
D. B. Kirby, M.D.
New York, N. Y.

PEDIATRICS
Room B, Civic Auditorium
Leader
E. E. Martmer, M.D.
Detroit
Guest Speaker
A. J. Horesh, M.D.
Cleveland

PUBLIC HEALTH AND PREVENTIVE MEDICINE
Room A, Civic Auditorium
Leader
J. G. Molner, M.D.
Detroit
Guest Speaker
F. H. Top, M.D.
Minneapolis

SURGERY
Black and Silver Ballroom, Civic Auditorium
Leader
G. C. Penberthy, M.D.
Detroit
Guest Speaker
C. A. Moyer, M.D.
Dallas, Texas

FRIDAY, SEPTEMBER 28, 1951
4:30 to 5:30 p.m.

DERMATOLOGY AND SYPHILOLOGY
Room 222, Pantlind Hotel
Leader
A. C. Curtis, M.D.
Ann Arbor
Guest Speaker
S. W. Becker, M.D.
Chicago

GENERAL PRACTICE
Continental Room, Pantlind Hotel
Leader
J. F. Failing, M.D.
Grand Rapids
Guest Speaker
E. L. Sevringhaus, M.D.
Nutley, N. J.

MEDICINE
Red Room, Civic Auditorium
Leader
C. B. Beeman, M.D.
Grand Rapids
Guest Speakers
R. V. Ebert, M.D.
Minneapolis
R. D. Pruitt, M.D.
Rochester, Minn.

NERVOUS AND MENTAL DISEASES
Room 328, Pantlind Hotel
Leader
R. W. Waggoner, M.D.
Ann Arbor
Guest Speaker
T. V. Hoagland, M.D.
Detroit

PEDIATRICS
Room G, Civic Auditorium
Leader
H. R. Roehm, M.D.
Birmingham
Guest Speaker
W. E. Nelson, M.D.
Philadelphia

SURGERY
Black and Silver Ballroom, Civic Auditorium
Leader
H. B. Barker, M.D.
Pontiac
Guest Speakers
W. P. Blount, M.D.
Milwaukee
O. T. Clagett, M.D.
Rochester

All members are invited to join in these quiz periods with the guest essayists.

THURSDAY MORNING

September 27, 1951

Third Assembly

Black and Silver Ballroom, Civic Auditorium
Grand Rapids

Chairman: William Bromme, M.D., Detroit
Secretary: W. A. Stryker, M.D., Wyandotte

A.M.

9:00 **"The Use of the Sex Hormones in Everyday Therapy"**

Allan C. Barnes, M.D., Columbus, Ohio

Chairman, Department of Obstetrics and Gynecology, Ohio State University College of Medicine.

The use of sex hormones in everyday practice. The most abused and overused medications in our current therapy are the sex hormone products.

This misuse arises primarily because of a tendency to think in terms of individual disease entities and to forget the basic principles involved in such endocrine therapy.

The present discussion is simply a review of the principles which should guide the practitioner in the use of these substances in his office practice.

9:30 **"The General Preparation of the Patient for Eye Surgery"**

Daniël B. Kirby, M.D., New York, New York

Surgeon, Bellevue Hospital; Surgeon Consultant, Manhattan and New York Eye and Ear Infirmary.

This subject will be presented to the general physician for co-operation with the eye surgeon so that operation for removal of cataract, relief from glaucoma and reattachment of the retina, etc., may be done with the least psychologic and physiologic shock to the patient and with the greatest prospect of restoration of vision in the individual cases.

The ophthalmologist may request a careful history and general physical examination, so that he may be guided thereby. Focal and general infection may be found and treated prior to operation. Routine anti-biotic therapy will be advocated. Hypertension, vascular and blood disorders, prostatic and digestive disturbances, allergic or respiratory difficulties all need attention in advance of the surgery.

Particular attention will be paid to the sedation of the patient, to the choice of the particular drugs, the use of the barbiturates, the injection of an analgesic agent, the best of which seems to be demerol; the use of a new solution for local anesthesia, and finally the research and experience of four years in the use of the refined products of curare in the production of general akinesia under local anesthesia, providing at the time of the operation, a quiet eye in a quiet body. It is highly to be recommended.

The covering of only one eye, permitting the patient to open the unoperated eye combined with early mobilization of the patient assist greatly in the reduction of complications during the early recovery period. Shock doses of non-specific protein agents and other debilitating treatments are avoided. Tonic measures including intramuscular injections of Vitamin B Complex have been found of value. Antibiotics, ACTH and Cortisone are of value in certain cases. The important factors of general relaxation of the patient during and after the operation can be achieved.

10:00 **INTERMISSION TO VIEW EXHIBITS**

11:00 **"Bronchial Asthma in Infants and Children"**

Arthur J. Horesh, M.D., Cleveland, Ohio

Assistant Clinical Professor of Pediatrics, Western Reserve University College of Medicine; Director, Department of Pediatric Allergy, University Hospitals, Cleveland.

The prevalence of asthma is increasing in pediatric practice. It very frequently begins during the first two years of life, Asthma that begins in infancy is more likely to be severe, and the symptoms in some cases are difficult to control.

The usual sequence of allergic disorders in childhood is: colic, eczema, recurrent upper respiratory infections, perennial allergic rhinitis, then asthma. These diseases, which are often precursors of bronchial asthma, should be treated not only for themselves, but also to prevent, if possible, the development of bronchial asthma.

The first step in the treatment of bronchial asthma is early diagnosis. Asthma in infancy differs from asthma in childhood and adults, and may present some difficulty in diagnosis. Some of the conditions which must be excluded are: foreign body in the bronchus, cystic fibrosis of the pancreas, mediastinal and pulmonary disease of tuberculous etiology, infections tracheobronchitis, dust bronchitis and congenital vascular rings.

The treatment of bronchial asthma consists of (1) the relief of the acute attack, (2) the prevention of future attacks. In the relief of the acute asthmatic attack, epinephrin 1:1000 solution is still the most valuable drug. The use of antibiotics has been a valuable adjunct to prevent infection, especially in infants and young children. The use of ACTH and cortisone in allergic diseases should be reserved for extreme states and in self-limiting conditions.

The most important aspect in the management of bronchial asthma is the prevention of attacks. This is accomplished by (1) elimination of the offending allergens, (2) producing in the individual protective antibodies by injection of specific antigens, (3) control of the so-called nonspecific factors.

11:30 **"Pediatric Problems Arising from Atomic or Biological Warfare"**

Franklin H. Top, M.D., Minneapolis, Minnesota

Professor of Epidemiology and Pediatrics, School of Medicine, University of Minnesota.

12:00 **END OF THIRD ASSEMBLY**

INTERMISSION TO VIEW EXHIBITS

Program of Sections

(No Luncheons)

THURSDAY NOON

September 27, 1951

12:45 p.m. to 1:30 p.m.

SECTION ON PEDIATRICS

Red Room, Civic Auditorium—12:45 p.m.

Chairman: R. J. Mason, M.D., Birmingham
Secretary: H. L. French, M.D., Lansing

"Allergy in Pediatric Practice"

Arthur J. Horesh, M.D., Cleveland, Ohio

An acquaintance with the concepts and principles of allergy is essential in the modern practice of pediatrics. The pediatrician enjoys the most favorable opportunity of studying allergic conditions as he sees them at their inception. It is now generally known that any organ or group of organs may be involved in an allergic reaction. The symptoms will depend upon the tissues sensitized, the degree of sensitization and the nature and amount of allergies present. Every pediatrician is plagued by a host of complaints from parents about conditions which are extremely common, yet he can find little or nothing concerning their cause. Such conditions as poor appetite, disturbed sleep, habit spasms, nervous disorders, irritability, headaches, stomach-aches, frequent colds, poor resistance to infection, diarrhea, constipation, skin rashes, bed wetting, behavior problems, are only a few of the many problems which face the pediatrician. It is our purpose to alert the physician to the possibilities of allergic etiology for some of these conditions and to demonstrate that much can be done for many of these childhood problems if the essential fundamentals of allergic knowledge are kept in mind.

SECTION ON SURGERY

Black and Silver Ballroom, Civic Auditorium—12:45 p.m.

Chairman: L. C. Carpenter, M.D., Grand Rapids

Secretary: F. P. Husted, M.D., Bay City

"Varicose Veins—Evaluation and Treatment"

Charles R. Doyle, M.D., St. Louis, Missouri

Varicose veins of the lower extremities and the ulcers of the legs they often cause, continue to be one of the most distressing common conditions which confront the doctor. The basic trouble arises when the valves in the veins, which lie between the skin and the muscles of the lower extremity, no longer control the direction of the flow of blood. Normally the blood in the veins moves only toward the heart, but when the valves become incompetent there is increased pressure on the vein walls which causes them to become large and tortuous, and the blood flows in the wrong direction (retrograde flow) so that the nutrition of the tissues of the leg is impaired. As a result of the poor nutrition of the skin of the leg, minor brusises and cuts do not heal properly and an ulcer results which is painful, requires daily dressings, and frequently becomes so large and so deep that the patient cannot work or carry on ordinary activities. In the author's opinion the best treatment is removal of the diseased veins. This usually results in prompt healing of the ulcers and relief of symptoms. Removal is accomplished by means of a cable type of instrument which is passed through the vein and removes it entirely, usually through but two small incisions. Ordinarily hospitalization is necessary only four or five days.

SECTION ON OPHTHALMOLOGY

Room 222, Pantlind Hotel—12:45 p.m.

Chairman: F. B. Heckert, M.D., Lansing

Secretary: L. E. McCullough, M.D., Detroit

"What's New in Cataract Surgery"

Daniel B. Kirby, M.D., New York, New York

In appraising new and progressive developments in cataract surgery, one has a wide field for discussion. Any recent improvement of the intracapsular extraction or of the prevention of complications may be considered. The procedures which the essayist has recently found of importance in his own clinical surgical work will be presented. There are: (1) a new and improved local anesthetic compound. (2) The proper balance of sedation and analgesia for surgery under local anesthesia. (3) Four years of experience with general akinesia with the aid of the refined products of curare. (4) The use of Decker's combination conjunctival flap sealing the incision and radial appositional post placed sutures closing it. (5) The avoidance of epithelial implant. (6) The safety of iridotomy and the round pupil. (7) The introduction of the new terms of Indirect and Direct Separation of the Zonule to replace Rupture of the Zonular Fibers. (8) A modification of the Arruga Elschnig methods of starting the separation of the zonule before tumbling. (9) the essayist's new methods of separation of the upper zonule, including that of direct disinsertion in cases of resistant zonule. (10) The newer concepts of prevention of rupture of the capsule, trauma to the uvea and loss of vitreous.

SECTION ON PUBLIC HEALTH AND PREVENTIVE MEDICINE

Room G, Civic Auditorium—12:45 p.m.

Chairman: O. K. Engelke, M.D., Ann Arbor

Secretary: M. R. French, M.D., Hillsdale

"Possible Deleterious Effects from Immunization Procedures in Children"

Franklin H. Top, M.D., Minneapolis, Minnesota

SECTION ON GASTROENTEROLOGY AND PROCTOLOGY

Room 323, Pantlind Hotel—12:45 p.m.

Chairman: S. G. Meyers, M.D., Detroit

Secretary: E. F. Sladek, M.D., Traverse City

"The Diagnosis and Treatment of Chronic Intestinal Amebiasis"

Thomas T. Mackie, M.D., Winston-Salem, North Carolina

Infection by the *Endamoeba histolytica* is generally agreed to occur in approximately 10 per cent of the population of this country. Among certain special groups and in certain areas the prevalence is higher. Contrary to widely held belief, dysentery and acute or chronic diarrhea are infrequently clinical manifestations and, in fact, may be regarded as complications.

Whether or not all strains of the organism are pathogenic for man is controversial. In the majority of instances, however, careful history will elicit symptoms indicative of disturbed gastrointestinal function, and physical examination similarly will demonstrate abnormalities although often apparently insignificant in type and degree. The outstanding feature of the clinical picture is the lack of characteristics suggestive of any well-defined clinical entity.

Diagnosis of this infection requires specially trained laboratory personnel. Consequently, many cases are missed and, because of atypical symptomatology and chronicity, such individuals frequently are classified as psychoneurotics.

Treatment can be highly effective provided the anatomical distribution of the parasites in the tissues of the colon and the pharmacologic limitations of the available amebicidal drugs are considered in the planning of the therapeutic regime.

SECTION ON ANESTHESIOLOGY

Room 325, Pantlind Hotel—12:45 p.m.

Chairman: H. J. Van Belois, M.D., Grand Rapids

"Pharmacology of Thiopental; Renal and Hepatic Function during Anesthesia and Operation"

Emanuel M. Papper, M.D., New York, New York

In recent years, there has been an increased interest in the behavior of the kidney and the liver during the administration of anesthesia and the performance of surgical operations. Both organs subserve very important functions to the maintenance of normality in bodily activity. The kidney is concerned with the regulation of water balance and acid base balance of the body and therefore plays an important part in the welfare of all patients, particularly those subjected to operative procedures. The liver, likewise, carries on a great many activities, the disturbance of any one of which may lead to considerable distress to the patients. These organs are peculiarly sensitive to the lack of oxygen. They also respond rather dramatically to the imposition of anesthesia and operation. Because of the potential widespread effects of disturbances of the kidney and liver by anesthetic agents in operative procedures, a precise and quantitative study of their behavior during anesthesia and operation was undertaken as a joint study by members of the Departments of Medicine, Surgery and Anesthesiology of the College of Physicians and Surgeons, Columbia University, and the Presbyterian Hospital in the City of New York. Thirty-five patients were studied with these precise methods. The response of the kidney to the anesthetic agents studied, namely, cyclopropane, thiopental (Pentothal sodium) and nitrous oxide and ether was stereotyped and suggested that some over-all mechanism may be responsible for the significant responses which were observed. These consisted of a significant and sharp reduction in the flow of blood to the kidney, a reduction which was equally dramatic in the output of urine and a retention of sodium and potassium in the body. These changes were attributed to a marked constriction of the blood vessels in the kidney as a result of the action of these anesthetic drugs. The further imposition of surgery did not aggravate or improve the functioning of the kidney provided there was no excessive blood loss or surgical shock. The effects which were observed represent a dramatic change in the behavior of the kidney. These effects are reversible and return to normal with the withdrawal of the anesthesia. At the present time, it is impossible to state the precise nature of the influence of these changes upon the recovery from an operative procedure. There appears to be little doubt that such widespread effects upon the kidney must have an influence upon the nature of subsequent convalescence, but it is still too early to define exactly what that influence is.

Similar changes upon the blood flow to the liver were observed with the two anesthetic agents studied, cyclopropane and thiopental. The vascular supply to the liver, therefore, shares in the same pattern of constriction of blood vessels that was observed in the kidney.

THURSDAY AFTERNOON
September 27, 1951

Fourth Assembly

Black and Silver Ballroom, Civic Auditorium
Grand Rapids

Chairman: W. S. Jones, M.D., Menominee

Secretary: J. R. Delaney, M.D., Detroit

P.M.

1:30 "Diabetic Coma—Physiology and Treatment"

Alexander Marble, M.D., Boston, Massachusetts

Clinical Associate in Medicine, Harvard Medical School; Physician, New England Deaconess Hospital, Boston.

The patient should be taught to test the urine frequently and to report difficulties and illnesses promptly to his physician. The patient in diabetic coma belongs in a hospital. A trained technician always on call in the laboratory should begin chemical analysis at once and give a report regarding the blood sugar and CO_2 in at least an hour. One does not wait to learn the results of the blood analysis before starting treatment if the history, physical findings and urine tests are characteristic.

In the adult patient with full-blown coma, the initial dose given a few minutes after admission may well be 100 units subcutaneously with an additional 100 units intravenously with patients in circulatory collapse. At one hour after admission, when results of the blood sugar and CO_2 determinations are available, additional insulin in amounts ranging from 50 to 400 units may be given. Treatment must be individualized and needs during the first 18-24 hours may be gauged by blood and urine tests at appropriate intervals.

Intravenous infusion of salt solution shortly after admission should be continued until 2000 to 5000 cc. have been given, gauging the amount on the degree of previous dehydration. The stomach is often dilated and it is well to carry out gastric lavage routinely. The blood potassium may be followed by actual determinations or from serial electrocardiograms. Glucose should not be given during the early hours of treatment. The use of sodium bicarbonate is needless and, in some cases, harmful. No patient should die in or from diabetes unless there exists a complication which in itself is fatal.

2:00 "The Diagnosis and Management of Chronic Intestinal Diseases"

Thomas T. Mackie, M.D., Winston-Salem, North Carolina

Professor of Preventive Medicine, Bowman Gray School of Medicine; Director, Institute of Tropical Medicine, Bowman Gray School of Medicine; Consulting Epidemiologist, Communicable Disease Center, U.S.P.H.S.; President, American Foundation for Tropical Medicine, and President, Liberian Institute.

The chronic diseases of the intestinal tract may be roughly classified into four general categories: (1) congenital defects, (2) infection and inflammation, (3) malignancy and (4) the effects of long-standing malnutrition.

Identification of the area of involvement and the type of pathologic change concerned requires, in most instances, careful evaluation of symptoms and physical signs, examination of stool specimens for the presence of infectious agents, abnormal end-products of digestion, blood and inflammatory exudate. X-ray examination is essential but may be nonrevealing unless films are taken at fifteen- to twenty-minute intervals until the opaque meal has reached the lower colon, since deviations from the normal rate of forward progress and localized lesions of the small intestine can easily be missed. Similarly, pathologic changes, especially in the proximal colon, can often be identified only by double contrast barium enema after suitable preparation to ensure elimination of accumulated fecal matter.

Treatment may involve radical surgery or prolonged medical regimes, or a combination of the two. Effective therapeutic approach can be based only on accurate evaluation of the type of patholigc change and the extent of the lesions.

2:30 "The Principles of Good Clinical Anesthesia"

Emanuel M. Papper, M.D., New York, New York

Director, Department of Anesthesia, Presbyterian Hospital, N.Y.C.; Professor of Anesthesiology, College of Physicians and Surgeons, Columbia University.

Good clinical anesthesia may be interpreted in a wide variety of ways; for example, to some surgeons this may mean adequate and profound relaxation for abdominal procedures. To others, it may signify the precise and flawless carrying out of certain anesthetic techniques. To the anesthesiologist responsible for the administration of anesthesia, a good clinical anesthesia may mean an uneventful anesthetic experience. These are all legitimate interpretations of what is expected of good clinical anesthesia. However, it is the present purpose to present some of the elements that are concerned from the standpoint of the most important member of the operating team, the patient. While it is obvious and true that no surgical patient comes to a hospital to be anesthetized as a primary consideration, but rather for the completion of an operative procedure, it is nonetheless true that the surgical results may be severely conditioned, either favorably or otherwise, by the quality of the anesthesia which the patient experiences.

In a broad and almost philosophical sense, the defining of good clinical anesthesia is concerned with two factors: the first of these, the anesthesiologist; the second, the drugs and techniques which he employs. No matter how well understood a given anesthetic agent may be, the clinical result in any given stituation can be no better than the person responsible for administering it. To achieve the best of clinical results, the anesthesiologist must offer to the operating team and the patient certain definite qualifications. It will be readily apparent as the discussion progresses that these qualifications are in no way special but are those of any good physician. The competent anesthesiologist must be a good physician first and a specialist second. He must have the ability to understand human beings who come to the hospital as surgical patients. His approach to patients must be one of sympathetic understanding. Since fear and anxiety are common elements to most patients before operation, the anesthesiologist can and must serve a necessary function in helping to dispel the fear and anxiety by the communication of a sense of confidence to the patient and the provision of adequate information as to the nature of the anesthetic experience lying ahead. Knowledge is a tremendous factor in minimizing the fear that is born of the unknown and the uncertainty. This type of rapport with patients is as necessary for children as it is for adults.

To lay the ground work for good clinical anesthesia further, sensible planning of the management of anesthesia includes a comprehension of disease and the physiological disturbances which result from a variety of pathological processes. The knowledge of these disturbances may assist the anesthesiologist in preventing anesthetic stituations that bring clinical harm to the surgical patient. In a more positive sense, it may guide him—and frequently does—to the proper selection of a method or an agent for subsequent anesthetic management. Proper preparation of the patient in an emotional sense, the clinical contemplation of the patient's organic disease, and the functional or physiological changes resulting from disease are important, but not sufficient unto themselves for the provision of good clinical anesthesia.

The anesthesiologist, in addition, is a craftsman who must work with his hands. It is necessary that the art of manipulating the various drugs and anesthetic agents be developed to one of dexterous skill. This is of particular importance in the light of our present knowledge, since it has been demonstrated amply many times over that anesthetic agents exact a physiological price for the benefits of insensibility, muscular relaxation, and comfort which they provide. From all that has been learned, anesthetic agents produce alterations in function of all or most of the organ systems of the body. The problem in providing good clinical anesthesia is to provide the maximum benefits to the patient and the surgeon with a minimum imposition of deleterious effects which occur during the administration of anesthesia.

The principles of good anesthesia are therefore concerned with the exercise of shrewd clinical judgment, dexterous skill, a de-emphasis of specific anesthetic agents or methods, and an intellectual curiosity which will lead to the acquisition of new knowledge about the anesthetized state, either in the operating room or the anesthetic laboratory.

3:00 INTERMISSION TO VIEW EXHIBITS

4:00 "Experimental Use of Various Drugs in Hypertensive Complications of Pregnancy"

N. S. Assali, M.D., Cincinnati, Ohio

Assistant Professor and Director of Clinical Research, Department of Obstetrics, The University of Cincinnati College of Medicine; Director of Toxemia Clinic, Cincinnati General Hospital.

Although the primary cause of hypertensive diseases of pregnancy, particularly preeclampsia and eclampsia,

is as yet unknown, it is generally accepted that the main underlying pathophysiological phenomenon is a widespread arteriolar vasoconstriction. This generalized arteriolar spasm results in an increase in the peripheral resistance and reduction in the blood flow with anoxia to organs and tissues. Elevation of the blood pressure, particularly the diastolic, is among the first signs which reflect the increase in the peripheral resistance. Edema and albuminuria are the other signs and can also be explained on the basis of vasospasm.

It has been recently demonstrated that arteriolar vasoconstriction can be produced by several mechanisms. The most important are the following: (a) Increased neurogenic vasoconstrictor impulses mediated through the autonomic nervous system: (b) Humoral mechanisms similar to that produced by epinephrine or epinephrine-like substances. Evidence has been accumulated recently to prove that the arteriolar vasoconstriction in toxemia of pregnancy is mediated by humoral mechanisms.

Blockade of the sympathetic pathways by tetraethylammonium Chloride (TEAC) or by spinal anesthesia in toxemia of pregnancy results in a negligible fall in the blood pressure. The opposite is seen in normal pregnancy and in pregnancy associated with essential hypertension where the blood pressure drops markedly following autonomic blockade. Thus, TEAC is of no value in the treatment of toxemia of pregnancy. However, it can be used as a screening test in the diagnosis of this disease.

Other evidence has shown that the hypertension of toxemia of pregnancy is not caused by circulating epinephrine produced excessively in the body. The administration of adrenolytic agents such as Benzodioxane does not alter the blood pressure of these patients. Similar negative results are obtained by Roniacol and C^6.

On the other hand, it has been shown that the arteriolar vasoconstriction of toxemia of pregnancy is very sensitive to the action of Veratrum Viride preparations or to its alkaloids. The intravenous administration of these drugs result in a prompt arteriolar vasodilatation with a decrease in the peripheral resistance and a marked drop in the blood pressure. These drugs do not produce postural hypotension. The effect of one single intravenous dose lasts for one hour approximately. The intravenous administration of veratrum has been proved to be very effective in the treatment of preeclampsia and eclampsia.

4:30 **"Surgical Infections of the Skin and Fascia"**

CARL A. MOYER, M.D., Dallas, Texas

Dean and Professor Experimental Surgery, Southwestern Medical School of the University of Texas.

Discussion will be limited entirely to infections of skin and fascia that require extensive surgical intervention for their control. These infections have in the past been called hospital gangrene, acute streptococcic gangrene, and acute necrotizing fasciitis. When these infections arise while the individual is not receiving any antibiotics, the clinical signs are clearcut. When the infection arises while the individual is receiving certain antibiotics, the clinical signs are greatly modified and the infection may become exceedingly widespread before it is recognized. Eleven case summaries will be presented illustrating the differences between the clinical manifestations of the infection with and without the simultaneous administration of antibiotics. Wide surgical incision is still required for the control of these infections. The bacterial flora and the general physiologic derangements associated with the infection will be presented.

5:00 **END OF FOURTH ASSEMBLY**

5:00 **Discussion Conferences on Anesthesia, Gastroenterology-Proctology, Medicine, Obstetrics-Gynecology, Ophthalmology, Pediatrics, Public Health and Preventive Medicine, Surgery.** (See page 910.)

THURSDAY EVENING
September 27, 1951

STATE SOCIETY NIGHT

Ballroom, Pantlind Hotel

P.M.
10:30 **An evening of entertainment for all registrants, their ladies and guests.**

Cabaret-style Dance and Floor Show
Host: Michigan State Medical Society
(Admission by card furnished to all upon registration)

ONLY ONE MORE DAY TO VISIT YOUR MANY FRIENDS IN THE EXHIBIT

FRIDAY MORNING
September 28, 1951

Fifth Assembly

Black and Silver Ballroom, Civic Auditorium Grand Rapids

Chairman: D. B. WILEY, M.D., Utica
Secretary: E. M. SMITH, M.D., Grand Rapids

A.M.
9:00 **"The Differentiation of Dyspnea Caused by Cardiac Disease from Dyspnea Associated with Pulmonary Emphysema"**

RICHARD V. EBERT, M.D., Minneapolis, Minnesota

Professor of Medicine, University of Minnesota Medical School, and Chief of Medical Service, Veterans Administration Hospital, Minneapolis.

Shortness of breath (dyspnea) is a common complaint of persons seeking medical attention. This sensation can be caused by either disease of the heart or disease of the lung. Diseases of the heart produce shortness of breath when the heart fails. This is because heart failure produces certain changes in the lungs which interfere with their function.

At times it is difficult to determine whether the shortness of breath is caused by primary disease of the heart or primary disease of the lungs. Pulmonary emphysema is particularly difficult to distinguish from heart disease. This disease commonly occurs in the older age groups as does heart failure. As the primary defect is a loss of elasticity of the lungs the x-ray picture of the lungs may not be distinctive. Pulmonary emphysema interferes with the flow of blood through the lungs and because of this may lead to enlargement of the heart and heart failure.

Certain tests are of aid in differentiating pulmonary emphysema from primary heart disease. One of these is the measurement of the volume of air in the lungs. This is greatly increased in pulmonary emphysema. Another is the measurement of the amount of carbon dioxide in the blood. This is increased in many cases of emphysema because the lungs cannot excrete this gas properly. It is important to distinguish pulmonary emphysema from primary disease of the heart because the treatment is different.

9:30 **"The New Versus the Old in the Treatment of Syphilis"**

S. WILLIAM BECKER, M.D., Chicago, Illinois

Clinical Professor of Dermatology, University of Chicago.

Penicillin is probably the best drug ever evaluated for treatment of syphilis; however, a single short course has failed in 10 per cent of acute infections. Constant improvement in the drug, along with increase in dose and total dosage have produced progressively better therapeutic results. Penicillin used alone has proven best for mass public health control of early syphilis, because of high tolerance, inexpensiveness, rapidity of action and 90 per cent efficacy. Prophylactic management of exposed persons is nearly 100 per cent efficient. Prolongation of treatment, periodic retreatment with penicillin, treatment with other antibiotic, or combination with arsenical and/or bismuth may prove more advantageous for treatment of the co-operative patient in private practice. Quantitative serologic tests are necessary because of rapid changes in titre. Good results have also been obtained in late stages of syphilis, in pregnant women and in prenatal syphilis. Other antibiotics, namely—aureomycin, terramycin and chloramphenicol have given promise of being of use in syphilotherapy on the basis of preliminary observations. Use of antibiotics should be given some credit for the decreasing incidence of the disease, decrease in infant and adult mortality, and fewer admissions to mental institutions because of syphilis.

10:00 INTERMISSION TO VIEW EXHIBITS

11:00 "Vitamin Therapy in Clinical Practice"

ELMER L. SEVRINGHAUS, M.D., Nutley, New Jersey

Director of Clinical Research, Hoffmann-La Roche, Inc.; Director of Endocrinology and Metabolism, Jersey City Medical Center.

Although gross vitamin deficiency diseases are now rare in the United States, it is common to find marginal chronic deficiencies or acute deficiency disorders. These are usually produced by such conditions as economic handicap, ignorance of proper diet, fads or unwise habits, unwise prescription of diet control by physician or hospital dietician, by the fabrication and preservation of many of our foods, and also acute disorders may be precipitated by infections, trauma, surgery, or extensive burns.

The phenomena which are ordinarily associated with the specific deficiencies of the different vitamins will be illustrated briefly. The therapeutic means for prevention and for treatment will be discussed with emphasis on the importance of using multiple vitamin preparations, rather than single vitamins in most cases. The selection of such multiple preparations to get really complete representation of important vitamins will be discussed. The small value of parenteral vitamin administration as compared with the superior use of oral vitamins will be stressed.

11:30 "The Neurosurgical Methods for the Relief of Pain"

JOHN MARTIN, M.D., Chicago, Illinois

Associate Professor of Surgery, Northwestern University Medical School

There are many patients who suffer pain of an intractable nature, the result of various diseased processes and in certain postoperative states. The control of such severe and persistent pain is frequently impossible by drugs alone, and the unhappy cycle of gradually increasing the dosage of heavy sedation and specific narcotics becomes necessary for the control of the pain (though pain rarely is thus completely controlled), so that before long the patients not only are addicted to the drug, but furthermore show the deteriorating general body effect and malnutrition which is a part of the picture of drug addiction. Various especially contrived surgical procedures can be performed upon specifically located portions of the brain and spinal cord (central nervous system) and the autonomic nervous system, to control most types of intractable pain, and fortunately, it can be done without further crippling the patient. Obviously, for such procedures, a very accurate knowledge of the anatomy and physiology of the nervous system is paramount, and surgical technique must be meticulous.

Intractable pain of such a degree as to require increasingly heavy analgesics can frequently be controlled by the application of the proper surgical procedure together with the accurate knowledge of the anatomy of the area which is selected as the optimal point at which sensory perception should be interrupted. The commonest forms of operation are, on the central nervous system, posterior rhizotomy (for somatic pain only), anterolateral section of the spinal cord (cordotomy), resection of focal areas of the cerebral sensory cortex (as has on occasion been done for phantom pain in an amputated extremity), and unilateral or bilateral frontal leucotomy in the brain, when there is a poor ultimate prognosis and where drug addiction has become a major problem.

Surgery of the autonomic nervous system can be applied with good results in such painful states as Raynaud's disease, angina, thromboangitis obliterans, and various other afflictions of the visceral systems of the body. The segmental distribution of the various parts of the autonomic nervous system is not nearly so clear-cut as is true of the central nervous system, and very frequently an insufficiently wide resection of the autonomics results in an early return of the pain because of the marked proclivity of this system for regeneration after any part has been resected.

12:00 END OF FIFTH ASSEMBLY

Program of Sections

(No Luncheons)

FRIDAY NOON
September 28, 1951

12:45 to 1:30 p.m.

SECTION ON PATHOLOGY

Schubert Room, Pantlind Hotel—12:45 p.m.

Chairman: W. A. STRYKER, M.D., Wyandotte

"Type of Glioma of the Brain in Relationship to Prognosis"

JAMES W. KERNOHAN, M.D., Rochester, Minnesota

The concept that gliomas of the brain arise from preexisting adult types of glial cells by a process of dedifferentiation rather than from undifferentiated cells or cell rests will be discussed. On the basis of this concept of tumor cells at various stages of dedifferentiation or anaplasia, a simplified classification of the gliomas will be presented. This classification will be correlated with the prognosis (both for operative symptoms and postoperative survival) of patients harboring these tumors. The fact that gliomas are frequently mixed—contain cells of different degrees of dedifferentiation—will be discussed and the significance of this fact commented upon. Gross and microscopic appearances of some of these tumors will be illustrated.

SECTION ON MEDICINE

Black and Silver Ballroom, Civic Auditorium—12:45 p.m.

Chairman: J. W. HALL, JR., M.D., Traverse City

Secretary: D. I. SUGAR, M.D., Detroit

"Pulmonary Hypertension"

RICHARD V. EBERT, M.D., Minneapolis, Minnesota

For many years it has been possible to measure the blood pressure in the systemic circulation. The introduction of cardiac catheterization has made possible the measurement of pressures in the pulmonary circulation. The technique of cardiac catheterization involves the threading of a slender tube into the veins of the arm. The tube is passed through the right side of the heart into the pulmonary artery (the main artery to the lungs).

In normal men, the pressure in the pulmonary artery is low, being approximately one-sixth that in the systemic arteries. In certain disease states, the pressure is increased. Disease of one lung does not alter the pressure in the pulmonary artery, but diffuse disease involving both lungs leads to an increase in pressure. Certain diseases of the heart are also associated with a marked elevation in pressure.

Increase in pressure in the pulmonary artery causes a strain to be placed on the right side of the heart. The heart enlarges, and ultimately heart failure may occur. In this manner, diseases of the lung may lead to heart enlargement and heart failure.

SECTION ON GENERAL PRACTICE

Continental Room, Pantlind Hotel—12:45 p.m.

Chairman: E. H. FENTON, M.D., Detroit

Secretary: E. M. SMITH, M.D., Grand Rapids

"The Use of Estrogens and Progesterone by the General Practitioner"

ELMER L. SEVRINGHAUS, M.D., Nutley, N. J.

The physiological functions of estrogen and progesterone will be summarized. The diagnostic methods by which deficiencies or absence of function may be detected will be presented. Choice of materials for therapy and types of administration will be discussed. Treatment will be presented for the climacteric syndrome, for amenorrhea, irregularities of menstruation, and reduced fertility. Attention will also be given to pre-menstrual tension states.

SECTION ON NERVOUS AND MENTAL DISEASES

Room 222, Pantlind Hotel—12:45 p.m.

Chairman: J. L. KUBANEK, M.D., Dearborn
Secretary: J. E. WEBSTER, M.D., Detroit

"The Principles and Problems in Psychotherapy with the Veteran"

THOMAS V. HOAGLAND, M.D., Detroit

Diplomate of American Board of Psychiatry; Consultant to Veterans Administration

The purpose of this paper is to promote a deeper understanding of the problems of the emotionally disturbed veteran. The re-emphasis of the psychodynamic structure of the emotionally ill person will be discussed as well as those factors responsible for the precipitation of the illness in later life. The psychological disorders will be presented in reference to those relationships of the veteran to his therapist, his family, and his community.

The pension, as well as other types of governmental support, are discussed in their relationship to this type of illness, and their value questioned in certain types of therapy.

Current therapeutic facilities are evaluated in the care of the veteran in the hospital and in private practice. Special attention will be placed on the therapeutic techniques and goals of the therapist in relation to his training, with emphasis on the necessity of prolonged postgraduate work in the field of psychodynamics for those whose relationship will be more intensive than therapy which is supportive or directional.

FRIDAY AFTERNOON
September 28, 1951

Sixth Assembly

Black and Silver Ballroom, Civic Auditorium
Grand Rapids

Chairman: G. W. SLAGLE, M.D., Battle Creek
Secretary: J. E. WEBSTER, M.D., Detroit

P.M.

1:30 **"Treatment of the Painful Hip"**

WALTER P. BLOUNT, M.D., Milwaukee, Wisconsin

Chairman, Fracture Service, Milwaukee Children's Hospital.

"Growing pains" in children may be evidence of hip trouble. They should be heeded as a possible warning of serious growth disturbance. The etiology and differential diagnosis of lesions causing hip pain in children and in adults will be discussed. Coxa plana (Legg-Calve-Perthes) and coxa vara (slipped femoral epiphysis) may be cured if promptly diagnosed and properly treated. Haphazard care leads to deformities which become disabling at the most productive time of life.

In adults, painful hips may usually be relieved by simple measures. Weight reduction and the use of a cane may be all that is required. A graduated program for the treatment of increasing disability will be outlined. A complicated operation is usually not necessary. When surgery is indicated, the newer operations offer great hope of relief.

2:00 **"Errors in the Therapy of Infectious Diseases in Infants and Children"**

WALDO E. NELSON, M.D., Philadelphia, Pennsylvania

Professor and Head of Department of Pediatrics, Temple University School of Medicine and Hospital; Medical Director of St. Christopher's Hospital for Children, Philadelphia.

Some errors of therapy are attended with serious consequences for the patient, others are of less consequence for the individual patient and are of importance chiefly from an economic standpoint and on the possibility that they contribute to an uncritical attitude on the part of both physicians and laymen.

Considerable emphasis has been placed on the dangers inherent in the therapeutic agent itself such as those resulting from direct damage to tissues by toxic, allergic or mechanical means and the indirect ones secondary to the development of resistance to therapeutic agent by existing bacteria or to the establishment of new bacterial flora including organisms not susceptible to agents being administered.

Without minimizing these dangers, it is becoming increasingly necessary that attention be paid to others as important or at the moment perhaps even more so. Most of these errors in therapy can be grouped under the headings which follow:

1. Unnecessary therapy
   (a) in mild self limited diseases
   e.g. upper respiratory infections, especially viral epidemics
   (b) in severe infectious diseases not affected by available therapeutic agents.
   e.g. viral encephalitides
   histoplasmosis
   tuberculosis—with other than streptomycin and promizole
   (c) non-infectious diseases
   e.g. leukemia, hypoplastic anemias, Letterer-Siwes—certain neoplasms.
   (d) unnecessary local administration
   e.g. oral troches
   intrathecal administration
   vaginal suppositories
2. Use of wrong therapeutic agent
   (a) Need for securing smear, culture and susceptibility tests from appropriate material before therapy is started. Therapy should not be withheld, however, in serious infections, until results of above are available but should be chosen on the basis of as complete coverage as possible of probable pathogens in a given situation.
   (b) failure to appreciate which bacteria are the more common pathogens in the various age periods—especially in the newborn and early infancy periods.
   (c) The principal error is in persistence of ineffective therapy. Laboratory tests if secured initially and interpreted properly are of greatest importance in avoidance of this type of mistake.
3. Inadequate therapy on a quantitative basis, so-called "suppressive therapy"
   (a) insufficient dosage
   (b) insufficient length of time

Items "2" and "3" constitute the principal errors of the moment, but to some extent are related to the carelessness inherent in the policies listed under "1" (unnecessary therapy).

Failure to use the most effective agent available under optimum dosage and time schedules may result in persistence of infection, often for a period of time at a subclinical level or in a distorted clinical pattern so that the true nature of the disease is not appreciated until serious and often irreparable damage occurs. Such untoward results constitute one of the more important problems in pediatric practice at the present time. They are seen with relative frequency in meningitic and osseous infections and to a somewhat lesser extent in arthritic, pleural, peritoneal and mastoid infections.

4. Other errors—
   (a) unnecessary multiple therapy
   (b) unnecessary shifting of therapy
   (c) failure to guard against toxic and mechanical damage, especially with sulfonamides
   (d) failure to use adjunct therapy
   (e) undue delay of surgery

Case histories—illustrating particularly the errors listed under "2" and "3."

Specific suggestions for management of some of the more important infectious conditions.

2:30 **"Peripheral Neuritis"**

JAMES W. KERNOHAN, M.D., Rochester, Minnesota

Professor of Pathology of Graduate School of University of Minnesota, Mayo Foundation and Head of Section of Pathologic Anatomy.

Of the various symptoms of neuritis which bring a patient to his physician, disturbances in sensation (pain, numbness, et cetera) are the most prominent and annoying. Disturbances of motility and visual function are other common accompaniments of neuritis. Discussion of etiology of some of these upset functions will be presented and various types of neuritis will be illustrated. Degenerative changes that are the result of the various etiologic agents, and the regeneration that occurs in some cases, will be illustrated. A simple workable classification of the etiologic agents as well as the pathologic changes will be presented.

(*Continued on Page 918*)

Scientific Exhibits

Detroit Society for Prevention of Blindness **Booth No. I**
Detroit, Michigan

"Children's Eyes"

The Grace Hospital (M. K. Newman, M.D.) **Booth**
Detroit, Michigan **No. II**

"Physical Medicine and Rehabilitation in General Practice—Hemiplegia, Arthritis, etc."

The exhibit will consist of descriptions and photographs illustrating the various physical agents and rehabilitation measures useful in general practice. An outline of management of hemiplegia, arthritis and associated diseases will be illustrated.

Beth-El Hospital (H. R. Litchfield, M.D., S. D Sternberg, M.D., and I. J. Greenblatt, Ph.D.) **Booth No. III**
Brooklyn, New York

"Serum Protein Values in Infants Fed Soy Milk"

Cook County Hospital; Cook County Graduate School; Chicago Medical School **Booth No. IV**
(W. J. Reich, M.D., M. J. Nechtow, M.D., and Angela Bartenbach)
Chicago, Illinois

"Practical Gynecology"

Practical procedures in gynecology are presented, such as cytology in diagnosis of early carcinoma, the indications and the use of folding plastic pessaries and juvenile vaginoscopy. The diagnosis and treatment of trichomonas vaginitis are shown, as well as the endometrial biopsy, Huhnertest, biopsy for the diagnosis of carcinoma, injection treatment for intractable pruritus vulvae and the use of a simple intrapelvic hydrotherapy apparatus for pelvic inflammatory disease.

Michigan Tuberculosis Association **Booth No. V**
Lansing, Michigan

"Rule Out Tuberculosis"

Pointing up the theme "LOOK FOR TUBERCULOSIS IN EVERY ADULT PATIENT," a three-panel lighted exhibit depicts the ever-present threat of hidden TB and demonstrates the need for routine x-ray examination for tuberculosis among private patients.

Arthritis and Rheumatism Foundation **Booth No. VI**
Michigan Chapter

"Problem of Arthritis"

Information is presented to acquaint the profession with activities of the Michigan Chapter of the Arthritis and Rheumatism Foundation. The cooperation of all physicians is needed in order to continue the work in progress. Some of the basic fundamentals on rheumatoid arthritis will be shown.

MSMS Cancer Control Committee and American Cancer Society, Inc. **Booth No. VII**

"Cancer of the Lung"

Twenty-foot constructed exhibit containing four main panels, one each on Statistics, Epidemiology, Diagnosis and Treatment of Cancer of the Lung. A left and right panel containing, respectively, pertinent questions and summary on this topic.

Statistics: Comparative statistics on relationship of lung cancer to all sites prior to 1900 to the present rates of cancer of the lung in U. S. A. compared by sex and by site.

Epidemiology: Analysis of endogenous and exogenous factors and their casual relationship to cancer of the lung.

Diagnosis: An outline of all current diagnostic procedures for cancer of the lung with notes on their varying efficacy.

Treatment: Indication for surgery—survival rates. The indication for surgery, curative measures showing survival rates from pneumonectomy and an outline of several palliative procedures.

MSMS Rheumatic Fever Committee and Michigan Society for Crippled Children and Adults, Inc. **Booth No. VIII**

"Rheumatic Fever"

(With Cooperating Agencies: Michigan Heart Association, Michigan Society for Crippled Children and Adults, Michigan Crippled Children Commission.)
Organizational Diagrams and Charts, Statistical Graphs and Charts.

Michigan Department of Health **Booth No. IX**
Lansing, Michigan

"Simple Goiter in Michigan School Children"

Findings of survey of school children in Houghton, Wexford, Midland and Macomb Counties carried on to determine incidence of thyroid enlargement.

Michigan Allergy Society **Booth No. X**

"Asthma, Diagnosis and Treatment"

This exhibit will consist of the essential points in the diagnosis and treatment of the asthma in the young, middle-aged and elderly patient. The indications for diagnostic, testing, desensitization, treatment and use of newer drugs, ACTH and Cortisone.

Michigan Pathological Society **Booth No. XI**

1. Lupus Erythematosus Phenomenon in Blood and Bone Marrow." By Lawrence Berman, M.D., Department of Pathology, Wayne University College of Medicine, Detroit, Michigan.

2. Presentation showing Organization, Objectives and Methods for Registration of Tumors with the Michigan Tumor Registry. Sponsored by the Michigan Tumor Registry, Henry Tesluk, M.D., Director. Administrative Committee: O. A. Brines, M.D., Frank W. Hartman, M.D., William L. Simpson, M.D., A. A. Humphrey, M.D., John Locke. Sponsors: Michigan Pathological Society, Michigan State Medical Society, Michigan Cancer Foundation, Detroit Institute for Cancer Research and American Cancer Society, Southeastern Michigan Division.

3. "Hematologic Studies using the Electron Microscope." By John W. Rebuck, Department of Laboratories, Henry Ford Hospital, Detroit, Michigan.

Michigan Heart Association **Booth No. XII**

"Cardiac Housewife Program"

A model "Heart Kitchen" to demonstrate time and energy-saving techniques developed by Michigan Heart Association for women with heart disease.

Michigan Crippled Children Commission **Booth No. XIII**

"Rehabilitation of the Severely Handicapped Child"

The Michigan Crippled Children Commission exhibit will portray the beneficial results of treatment provided severely handicapped children (amputees, cerebral palsied, polio, paraplegics) through the services available in a well-rounded physical rehabilitation program. The success of such a program is due primarily to the efforts and cooperation of medical specialists and auxiliary groups.

American Academy of General Practice **Booth No. XIV**

The exhibit portrays the organizational structure and the unprecedented growth of the Academy. Illustrative literature and examples of official Academy reports will be available. Charts feature membership growth and the program in continuation postgraduate study.

American Medical Association **Booth No. XV**
Chicago, Illinois

"Cosmetic Dermatitis"

This exhibit illustrates the dermatoses acquired from various cosmetics. Through the medium of Kodachrome transparencies and photographs, the causes of cosmetic dermatitis, the clinical appearance, the use of a patch test as a diagnostic aid and the treatment and prognosis are portrayed.

Michigan Medical Service-Blue Shield **Booth No. XVI**
Detroit, Michigan

You are cordially invited to visit our booth which is designed to show the growth and development of Michigan Medical Service-Blue Shield. Our representatives will be on hand to visit with you and to answer any questions you may have with regard to your Blue Shield Plan.

MSMS Public Relations **Booth No. XVII**

"Goals of MSMS"

An educational exhibit designed to show the progress of medical science through organized effort of the medical profession in respect to services available. The theme is carried by an arrow aimed at the target MSMS goals. Pamphlets relating to these goals will be distributed.

Wayne University College of Medicine **Booth No. XVIII**
Detroit, Michigan

"The New Medical Science Building and Library"

Full information on the new Science Building and Library will be given through scale models and photographic murals. Comparisons will be drawn to show inadequacy of present equipment. Co-operation of the medical profession will be sought.

SCIENTIFIC PROGRAM

(Continued from Page 916)

3:00 **FINAL INTERMISSION TO VIEW EXHIBITS**

Your Last Opportunity—for 30 minutes only.

3:30 **"Mediastinal Lesions"**

OSCAR T. CLAGETT, M.D., Rochester, Minnesota

Head of Section, Division of Surgery, Mayo Clinic; Associate Professor of Surgery, Mayo Foundation Graduate School, University of Minnesota

The mediastinum is a space bounded laterally by the mediastinal pleura, superiorly by the thoracic inlet, inferiorly by the diaphragm, anteriorly by the sternum, and posteriorly by the vertebral bodies and posterior portion of the ribs. It is occupied and traversed by a number of vital organs and structures. There is no other portion of the body in which such a wide variety of tumors can develop. It is surprising, in view of the close anatomic association of mediastinal tumors with the vital organs and structures in this region, that many of these tumors can become quite large before they produce symptoms and call attention to their presence.

Roentgenologic studies including the special technics of fluoroscopy, tomography, and angiocardiography provide the most valuable aids in the diagnosis of mediastinal tumors. Only a few such tumors can be treated effectively by radiation therapy. The risk of exploratory thoracotomy is so low that there is little excuse at the present time for employing radiation as a "therapeutic test" in the diagnosis of mediastinal tumors. Surgical excision provides the only effective treatment of most tumors of this region. In the case of those that cannot be successfully removed, surgical exploration and biopsy provide an accurate diagnosis that often is not possible by any other means, and they allow an intelligent treatment and estimate of prognosis. Because benign mediastinal tumors can interfere with the function of vital organs and structures in the mediastinum and because many of these tumors have a strong tendency to undergo malignant change, early surgical exploration and removal of mediastinal tumors are strongly advised. The clinical, roentgenologic, and pathologic characteristics of various mediastinal tumors will be reviewed.

4:00 **"Recent Advances in Diagnosis of Heart Disease"**

RAYMOND D. PRUITT, M.D., Rochester, Minnesota

Consultant, Division of Medicine, Mayo Clinic.

Cardiac disease is common. Its diagnosis ordinarily rests upon historical evidence, physical findings and laboratory data which are acquired readily, almost inevitably, in the course of a carefully and competently conducted examination of the patient. While efforts are being made constantly to improve on diagnostic technics, and while the journals devoted to cardiovascular disease are filled with reports on these efforts, obviously few of them are of such significance as to achieve a place of lasting importance in the diagnosis of cardiac disease.

As physicians with mortal limitations, our job is to recognize as soon as possible a real advance in diagnostic measures and to avoid frittering away our energies in an endless chase of "the latest thing." This review will consist of an attempt at appraising certain of the more enthusiastically proposed diagnostic measures of recent years. Comment will be made on certain developments in the fields of electrocardiography, angiocardiography and ventricular catheterization.

4:30 **END OF SIXTH ASSEMBLY**

4:30 **Discussion Conferences on Dermatology-Syphilology, General Practice, Medicine, Nervous and Mental Diseases, Pediatrics, Surgery.**

5:30 **END OF SCIENTIFIC ASSEMBLY AND OF 1951 ANNUAL SESSION.**

Technical Exhibits

Abbott Laboratories **Booth No. A-27**
North Chicago, Illinois

The Abbott exhibit will include ABBOCILLIN 800M, each cc. containing 600,000 units of penicillin G procaine and 200,000 units of penicillin G potassium; DAYALETS and OPTILETS, synthetic vitamin tablets with vitamin B_{12}; PENTOTHAL, an ultra-short-acting barbiturate for intravenous use; NEMBUTAL, a short-acting barbiturate for oral, rectal or intravenous use; SUCARYL, a synthetic, heatstable, noncaloric sweetening agent, and TRUOZINE Dulcet Tablets, candylike medication containing sulfadiazine, sulfamerazine and sulfamethazine.

Alkalol Company **Booth No. F-6**
Taunton, Massachusetts

The Alkalol Company will feature Alkalol, the balanced, alkaline, saline solution for the treatment of mucous membranes and irritated tissues. Also shown will be Irrigol, a powder which in solution makes an aseptic, slightly astringent vaginal douche. It is used also for colonic irrigations and as a rectal enema.

A. S. Aloe Company **Booth No. D-11**
St. Louis, Missouri

Visit Booth No. D-11 where the Aloe representative will show you a cross section of the complete stock of physicians' equipment and supplies carried by the A. S. Aloe Company. Highlighted will be new Steeline —Tomorrow's Treatment Room Furniture Today— featuring the body contour table top, magnetic door catches and advanced design all in new decorators colors.

Americana Corporation **Booth No. F-13**
Chicago, Illinois

All physicians and their guests attending the Michigan State Medical Society convention are cordially invited to visit Booth F-13 where there will be on display the mid-century printing of the *Encyclopedia Americana* celebrating the 122nd year of publication in America —the supreme authority for generations—and also the fortieth anniversary edition of the *Book of Knowledge,* the finest of all children's reference work—an American tradition.

American Hospital Supply Corporation **Booth No. E-19**
Evanston, Illinois

Baxter Intravenous Solutions, including the new invert sugar (Travert) solution providing twice the calories in the same infusion time; Tomac Conductive Shoes for safety in the operating room; Quantitest Technique for urine and spinal fluid protein tests; Courtland Irradiated Lypohillized Plasma—the only plasma with filter built in; and other Tomac Specialties.

Ames Company, Inc. **Booth No. B-4**
Elkhart, Indiana

The AMES DIAGNOSTIC KIT will be featured. This small kit (3 x 9 inches) contains CLINITEST, BUMINTEST, ACETEST, and HEMATEST, simplified tests for urine-sugar, albumin, acetone, and occult blood. The Ames representatives will be demonstrating these tests.

Ames Company representatives will be glad to discuss DECHOLIN AND DECHOLIN SODIUM, the standard hydrochloleretic agents for the treatment of biliary tract diseases.

Armour Laboratories **Booth No. E-1**
Chicago, Illinois

The Armour Laboratories will welcome members of the Michigan State Medical Society to visit the Armour Exhibit, Booth No. E-1, while attending the Annual Session.

Information on new items in the Field of Endocrinology, particularly Acthar (ACTH) is available to physicians on request.

The Armour Laboratories has arranged to show the films, "ACTHAR in Therapy' and "TRYPTAR— Physiologic Debridement," to members of the Michigan State Medical Society at the 1951 meeting. Each of these films presents a clear and well defined story of the action of these effective new preparations.
Room 222, Pantlind Totel, 10:00 a.m. and 3:00 p.m. daily, September 26-27-28.

Ayerst, McKennan & Harrison, Ltd. **Booth No. C-14**
New York, New York

Physicians attending the Michigan State Medical Society are cordially invited to visit the Ayerst booth. Representatives will be happy to answer inquiries relative to "Premarin," "Premarin" with Methyltestosterone, or other Ayerst specialties.

Baby Development Clinic **Booth No. F-9**
Chicago, Illinois

Maternity Counselling Service is a courtesy service available to doctors for their maternity patients. It relieves the doctor of the necessity of discussing layette needs and other preparations for home and baby. There is no charge or obligation to either doctor or patient.

The Baby Development Clinic will feature the psychological aspects of feeding, as well as several products suited to infant and child feeding and care. The manufacturers of these products support the educational work of this organization.

Baker Laboratories, Inc. **Booth No. B-2**
Cleveland, Ohio

Baker's Modified Milk (powder and liquid) and Varamel (liquid) are especially made, from Grade A milk, for the bottle-fed baby. Baker's is completely prepared and only water needs to be added. Varamel is the new formula base to which carbohydrate and water are added in accordance with the needs of the infant. Representatives will be glad to tell you more about these products.

Bard-Parker Co., Inc. **Booth No. C-18**
Danbury, Connecticut

Genuine Bard-Parker "Rib-Back" surgical knife blades, "the blade that assures cutting efficiency." A quality product that makes for blade economy; B-P handles of various types; Bard-Parker Germicide—a sporicidal solution; Bard-Parker Chlorophenyl; instrument sterilizing containers; The Reese Dermatome—for obtaining accurate split grafts.

Barry Laboratories, Inc. **Booth No. A-4**
Detroit, Michigan

The most recent advances in testing and treatment material of Allergy products will be presented, as well as the parenteral specialties that are marketed through the surgical supply dealers. Competent technical representatives will be on hand to discuss your various products.

Baxter Laboratories, Inc. **Booth No. A-26**
Morton Grove, Illinois

The new drug, Pyromen® is a sterile, nonprotein, nonanaphylactogenic bacterial component in a colloidal dispersion for intravenous or intradermal use. Pyromen® produces a generalized stimulation of the reticuloendothelial system and increased adrenocortical activity. Pyromen® has been used successfully in the treatment of certain allergic manifestations, dermatologic disorders and ophthalmic diseases.

Becton, Dickinson & Co. **Booth No. F-12**
Rutherford, New Jersey

General line of hypodermic syringes and needles, special needles, clinical thermometers, Ace Bandages, diagnostic instruments including the new B-D Yale Aneroid Manometer and our new line of Plastic Tubing and needles for use with it.

Beech-Nut Packing Company **Booth No. E-18**
New York, New York

Beech-Nut Cereal Food, Oatmeal and Barley Cereal, three new products, will be featured at this booth. Nutritionists will be in attendance to answer any questions regarding the nutritive value and composition of these as well as of the other Beech-Nut Strained and Junior Foods.

Borden Company **Booth No. B-13**
New York, New York

Borden representatives will be more than pleased to discuss a new powdered infant food with you. Bremil is a completely modified milk in which nutritionally essential elements of cow's milk have been adjusted in order to supply the nutritional requirements of infants deprived of human milk. Also exhibited will be Mull-Soy, Dryco, Biolac, and other prescription products.

Brooks Appliance Co. **Booth No. C-12**
Chicago, Illinois

Quality bandages will be displayed. Featured will be Polyestol, an elastic transparent bandage, which, when applied, releases Methyl Salicylate by absorption into the blood stream at approximate rate of 3.5 M.G.M. per square inch per hour at normal body temperature. Medicated Primer plus Dalzoflex elastic adhesion may be used to advantage in treating leg ulcers and Phlebitis. Mr. Ayer will describe in detail technique of application.

Brown & Williamson Tobacco Corp. **Booth Nos. E-15**
Louisville, Kentucky **& F-10**

KOOL CIGARETTE BOOTH

Willie, the famous Kool penguin, replete with stethoscope and head reflector, is shown suggesting to cigarette smokers that they switch from hots to Kools for that clean, Kool taste. An attractive souvenir will be given to each physician who registers at the Kool booth.

VICEROY CIGARETTE BOOTH

The Viceroy booth will feature an animated cross-section of the Viceroy filter tip cigarette. A series of illuminated arrows shows the progress of the smoke through the Viceroy filter tip.

Burroughs Wellcome & Co., Inc. **Booth No. A-14**
Tuckahoe, New York

Featured will be Perazil brand Chlorcyclizine Hydrochloride, the chemically different antihistaminic, distinguished by its long action and low incidence of side effects; the new Perazil Cream, a milestone in topical antihistaminic therapy; Tabloid brand Digoxin, for precise, predictable digitalization; Globin Insulin B. W. & Co., the only official (USP XIV) insulin with the desirable intermediate timing of action; and Dexin brand High Dextrin Carbohydrate, the ideal carbohydrate in adult and infant feeding.

Camel Cigarettes **Booth Nos. A-15**
New York, New York **& A-16**

Camel Cigarettes will feature color slides of background data from their newest research. After weekly examinations of the throats of hundreds of men and women smoking Camel Cigarettes exclusively for thirty days, throat specialists reported "Not one single case of throat irritation due to smoking Camels."

Cameron Heartometer Company **Booth No. A-9**
Chicago, Illinois

See the improved Heartometer, a scientific precision instrument for accurately recording systolic and diastolic blood pressures, also furnishing a permanent graphic record of the pulse rate, disturbances of the rhythm, myocardial response, the action of the valves, as well as peripheral vascular circulation. The Heartometer clearly reveals heart disturbances in both early and advanced stages, and is of great value in checking the progress of treatments.

Cameron Surgical Specialty Company **Booth No. F-11**
Chicago, Illinois

See the new Cameron Electro-Surgical Units, Suction Coagulation Handle and numerous other accessories for all phases of Surgery, Cauterization, Coagulation, Desiccation and Fulguration; Electro-Diagnostic Lamp and Instrument Outfits; the new stainless steel Boros Flexible Esophagoscope and other Peroral Endoscopic Equipment; Coagulair and Dualite Sigmoidoscopes; Tele-Vaginalite; other Illuminated Specula, Endoscopes and Retractors; new Mirror Type Headlites and Binocular Spectacle Loupes; Flexible Gastroscopes and Stomach Camera.

Carnation Company **Booth No. C-7**
Los Angeles, California

You are cordially invited to visit the Carnation Company Booth No. C-7 where you will see an attractive Trans-Illumination of the Carnation Experimental Farm near Seattle, Washington. The various uses of Carnation Evaporated Milk for Infant feeding, child feeding and general diet purposes will be explained. Valuable and interesting literature will be available for you.

Ciba Pharmaceutical Products, Inc. **Booth No. D-12**
Summit, New Jersey

Ciba Pharmaceutical Products, Inc., Summit, New Jersey (Booth D-12), invites you to visit its exhibit which will feature Priscoline Hydrochloride, an adrenolytic and sympathicolytic agent that produces peripheral vasodilation.

Representatives in attendance will gladly discuss the role of Priscoline in the treatment of peripheral vascular disease.

Coca-Cola Company — **Booth Nos. A-18 & A-19**
Atlanta, Georgia

Ice cold Coca-Cola served through the courtesy and cooperation of the LaSalle Coca-Cola Bottling Company and The Coca-Cola Company.

Commercial Solvents Corporation — **Booth No. F-4**
New York, New York

CSC Pharmaceuticals will feature Dia-Discs, a new diagnostic aid for the determination of the antibiotic of choice in a specific case. Also on display will be Tolanate, a new hypertensive agent, and Sirnositol, a lipotropic agent, which combines choline gluconate and inositol.

Contour Chair Company — **Booth No. F-7**
Detroit, Michigan

At Booth No. F-7 inspect the genuine, original Contour Chair-lounge as advertised in publications of the American Medical Association.
Consider its usefulness for Doctors' needed relaxation; for patients with edema, asthma, arthritis, cardiac disturbances, pregnancy; for convalescents and invalids.
Correct posture built in. Adjustable. Finest custom-quality. We invite comparison.

Desitin Chemical Co. — **Booth No. A-29**
Providence, Rhode Island

Desitin Ointment, the pioneer in external cod liver oil therapy, combines crude high potency Norwegian cod liver oil, zinc oxide, and talcum in a modified lanolin petrolatum base. Owing to its content of high natural vitamin A and D concentration and unsaturated fatty acids, Desitin Ointment alleviates pain and relieves itching promptly. It promotes granulation and epithelization. Desitin Ointment is not liquified at body temperature nor decomposed by secretions. Desitin Ointment forms a perfect protection for the skin.
Indications: Postoperative dressings, slow healing wounds, indolent chronic varicose ulcers, burns of all degrees, lacerations, bed sores, hemorrhoids and fissures.
Destin Powder, a unique, dainty, medicinal toilet powder contains crude cod liver oil, zinc oxide, magnesium oxide and talcum.
Uses: As of Desitin Ointment.

Detroit Creamery Company — **Booth No. F-18**
Detroit, Michigan



The Detroit Creamery Company has no instruments to demonstrate, nor can they display their dairy products, but physicians are invited to stop at the booth displaying the red and white sign of Sealtest which symbolizes Quality, through Laboratory Control.

Dictaphone Corporation — **Booth No. C-6**
Detroit, Michigan

The Dictaphone Exhibit features the world's most popular dictating equipment for doctors—the Time-Master—using plastic Memobelt records.
The Telecord system for hospitals, Dictaphone Corporation's lastest equipment designed to accommodate remote dictation from multiple stations, is displayed and demonstrated.
The Time-Master secretarial transcribing machine for nurse-assistant is featured.

Dietene Company — **Booth No. F-2**
Minneapolis, Minnesota



Visit our exhibit and examine the Free Diet Service for physicians. The diets are nutritionally well-balanced, easy to follow and made to appear as if they were typed in your office.
Meritene, the economical and palatable whole protein supplement, and Dietene, the "Council - Accepted" reducing supplement will be on display.

Doak Company, Inc. — **Booth No. E-13**
Cleveland, Ohio

Doak Company, Inc., specializing in dermatological preparations for over thirty years, present the following preparations: Buro Sol Powder, Buro Sol Cream, Spersol, Solar Cream, Normaderm, Tarpaste, and the new product Dalibour Powder.

Doho Chemical Corporation — **Booth No. B-3**
New York, New York

Doho Chemical Corporation and its subsidiary Mallon Chemical Corporation, are pleased to exhibit their preparations; Auralgan for the relief of pain in Otitis Media Cerumen; O-TOS-MO-SAN for treatments of the suppurative ears and aural dermatomycosis; Rhinalgan the new nasal decongestant without systemic or circulatory effect, in the plastic spray-o-mize, and Rectalgan (Mallon) the liquid topical anesthesia, for relief of pain and discomfiture in hemorrhoids, pruritus and perineal suturing.

Eaton Laboratories, Inc. — **Booth No. F-3**
Norwich, New York

For cervicitis and vaginitis and postconization to control drainage, slough and malodor, Furacin Vaginal Suppositories offer some novel and important advantages.
For control of stubborn cutaneous fungal infections, a new nitrofuran, Furaspor, is now available. This product is fungicidal, sporicidal and bactericidal. It kills fungi—not merely discourages them.

Eisele & Company — **Booth No. A-28**
Nashville, Tennessee

Eisele and Company will present their Interchangeable Hypodermic syringe along with their line of clinical thermometers, hypodermic needles and specialty glassware.

E & J Resuscitator Company — **Booth No. F-15**
Detroit, Michigan

The E & J (Baby) Resuscitator automatically substitutes natural respiration for the patient. Operating on a principle of fixed positive and negative pressures in alternating sequence, it adjusts to any lung capacity—whether that of a tiny infant or adult. It also employs suction and plain inhalation.
The New Livsey Incubator is heated with Radiant heating, doing away with the old light bulb idea.

Electronic Surgical Equipment Co., Inc. — **Booth No. F-5**
Philadelphia, Pennsylvania

Exhibited here is the Radiosurg Scalpel Operating Unit (fully rectified construction), a portable radio frequency surgical apparatus of advanced engineering design. This precision instrument permits the use of varied electronic surgical methods to meet the minor surgical needs of the general physician, proctologist,

gynecologist, or surgeon. Constructed according to exacting specifications, it supplies ideal current characteristics for these interventions.

Farnsworth Laboratories, Inc. **Booth No. A-2**
Chicago, Illinois

Specializing in parenteral medications, high potency vitamin solutions, a prolonged, aqueous base, local anesthetic, and perhaps you may be interested in migraine headaches, undulant fever, or sinus infections. There have been important advancements made in the treatment of these conditions, and trained personnel will be glad to discuss these fields with you.

H. G. Fischer & Company **Booth No. B-16**
Franklin Park, Illinois

Modern, high-quality X-ray and Physical Therapy Equipment will be exhibited for your inspection. See the "Spacesaver" Radiographic-Fluoroscopic Unit and Examining Table, which occupies such a small amount of office space; and the new, compact "Multi-Purpose" x-ray apparatus. Experts will be on hand to give information without obligation.

C. B. Fleet Company, Inc. **Booth No. B-17**
Lynchburg, Virginia

Phospho-Soda (Fleet), over the years, has won discriminating preference by thousands of physicians—because of its controlled action . . . its freedom from undesirable side effect—and its ease of administration.
There is only One Phospho-Soda (Fleet).

Freeman Mfg. Company **Booth No. C-13**
Detroit, Michigan

Geigy Pharmaceuticals **Booth No. F-14**
New York, New York

The Geigy exhibit will feature Tromexan™, new synthetic oral anticoagulant which has been widely reported as providing more rapid action and a greater margin of safety than other oral anticoagulants. Also on display will be Eurax® Cream, a new long-acting, non-sensitizing, antipruritic and scabicide; and Panparnit® indicated for symptomatic relief of Parkinson's disease.

General Electric X-Ray **Booth No. A-20**
Milwaukee, Wisconsin

General Electric X-Ray extends a cordial invitation to visit their exhibit. Representatives who call on you will look forward to your visit, and if circumstances beyond control do not prevent, new equipment will be on display. In any case, representatives hope that this meeting will again afford an opportunity to visit with you.

Gerber Products Company **Booth No. B-9**
Fremont, Michigan



Gerber's four one-grain cereals, are "on sale" in nearly all stores. . . . The new, important Rice Cereal is supplemented with selected cortical portions of the rice grain naturally rich in vitamin B-Complex. Enriched also with iron and calcium, the finished precooked cereal more than represents whole-grain rice in nutritional values.

Hack Shoe Company **Booth No. D-19**
Detroit, Michigan



Meet Morton Hack, designer of the new Hack Toe Out Shoe and of Hack's Tri-balance Foundation. In addition to his other duties, he is Hack's contact man to the medical profession and writes *Hack's Foot Notes* which appear in The Journal MSMS, *Detroit Medical News*, and the *Bulletins* of the Oakland and Washtenaw County Medical Societies.
You will find him in booth D-19 waiting to discuss shoes and shoe problems with you.

Hanovia Chemical & Mfg. Company **Booth No. C-2**
Newark, New Jersey

A most cordial invitation is extended to Michigan physicians to see Hanovia's New Short Wave Diathermy, possessed of features that are outstanding. Orificial and general body radiation—ultraviolet quartz lamps—infrared lamps—germicidal lamps and black light for diagnostic purposes, will be displayed.
Competent and courteous representatives will be on hand to greet you.

J. F. Hartz Company **Booth Nos. C-9**
Ferndale, Michigan **& C-10**

The J. F. Hartz Company cordially invites the doctors and their friends attending the 86th Annual Session of the Michigan State Medical Society to visit Booth Nos. C-9 and C-10 to see the latest in office equipment, diagnostic instruments and the Microtherm (radar type) diathermy.
Also exhibited will be a complete line of laboratory controlled fine pharmaceuticals.

H. J. Heinz Company **Booth No. F-17**
Pittsburgh, Pennsylvania

Stop at the Heinz exhibit for these: Nutritional Data, Nutritional Observatory. Do you need Baby Gift Folders for distribution among your patients? Have you seen the additions to Heinz Baby Food line—Strained Pears and Strained Sweet Potatoes? New Junior Foods are Pears, Pears and Pineapple, Custard Pudding, Chicken Soup, Vegetable Soup, Green Beans, and Carrots.

Hoffmann-La Roche, Inc. **Booth No. E-16**
Nutley, New Jersey

Two exceptionally interesting new products are featured at the Roche display: *Asterol,* a potent antifungal agent for ringworm of the skin, hair and nails; and *Gantrisin Ophthalmic,* a stable antibacterial solution for external eye infections. Representatives at the the booth will gladly discuss these and other Roche products with you.

Holland-Rantos Co., Inc. **Booth No. B-15**
New York, New York

Importance of patient acceptance in continued use of products for conception control explains why doctors increasingly recommend the Koromex Diaphragm Combination. The convenient unit package contains a Koromex Diaphragm plus small tube of *both* Koromex Jelly and Koromex Cream, so that—for the price of the diaphragm alone—patients may make their own choice. Representatives will gladly show you the Koromex Combination Sets and discuss the full line of Koromex contraceptive specialties.

G. A. Ingram Co. — **Booth Nos. D-4, D-5 & D-6**
Detroit, Michigan

THE G. A. INGRAM COMPANY will, as usual, have the latest Hamilton and Allison furniture on display, together with Burdick Physiotherapy Equipment, including their latest Short Wave Diathermy. They will also display a selection of Diagnostic Instruments for cancer detection, and the latest instruments for use in fracture work. Electrocardiographs will also be included in the display.

THE G. A. INGRAM COMPANY service all the equipment they sell.

C. B. Kendall Co. — **Booth No. D-9**
Indianapolis, Indiana

The C. B. Kendall Company extends cordial greetings to all the physicians attending the 86th Annual Session of the Michigan State Medical Society.

You are invited to visit the technical exhibit in Booth No. D-9. Members from the detail staff will be on hand to visit with you and discuss the products which are currently being detailed to your profession.

Kremers-Urban Company — **Booth No. A-30**
Milwaukee, Wisconsin

Kremers-Urban Professional Service representatives will welcome the opportunity to meet K-U's many Michigan friends. K-U Council-accepted medications and new research developments will be displayed. You are cordially invited to stop and visit.

A. Kuhlman & Co. — **Booth No. D-10**
Detroit, Michigan

Lanteen Medical Laboratories, Inc. — **Booth No. E-11**
Evanston, Illinois

Lanteen Medical Laboratories, Inc., extend a cordial invitation to visit their exhibit in booth E-11. Our representatives will be happy to discuss our products with you, including the latest development in fitting technique, involving the LANTEEN DIAPHRAGM.

Lea & Febiger — **Booth No. B-10**
Philadelphia, Pennsylvania

Be sure to visit the Lea & Febiger exhibit where you will find books of immediate interest to all members of the Society, including Goldberger—Heart Disease; Epstein—Regional Dermatologic Diagnosis; Ritvo—Chest X-Ray Diagnosis; Eller and Eller—Tumors of the Skin; Wintrobe—Clinical Hematology; Soffer—Diseases of the Endocrine Glands; Shurtleff—Children's Radiographic Technic; Bortz—Diabetes Control; Rice—Low Sodium Diet; Peck and Klein—Therapy of Dermatologic Disorders, and many others.

Lederle Laboratories — **Booths Nos. B-18 & B-19**
New York, New York

You are cordially invited to visit the Lederle exhibit in Booth Nos. B-18 & B-19, where you will find representatives who are prepared to give you the latest information on Lederle products.

Liebel-Flarsheim Co. — **Booths Nos. D-7 & D-8**
Cincinnati, Ohio

The Liebel-Flarsheim Company cordially invites you to visit their booth in which the latest diathermy and Bovie electrosurgical apparatus will be available for examination and demonstration. Capable representatives will be on hand at all times and hope you will stop by so they may become acquainted.

Eli Lilly & Company — **Booth No. C-5**
Indianapolis, Indiana

Your Lilly medical service representative cordially invites you to visit the Lilly exhibit located in Booth No. C-5. In commemoration of the seventy-fifth anniversary of its founding, Eli Lilly and Company will display a statuary group dedicated to and symbolizing the co-operation between medicine, research, and pharmacy. Many new therapeutic developments will be featured, and literature on these products will be available.

J. B. Lippincott Company — **Booth No. B-1**
Philadelphia, Pennsylvania

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

M & R Dietetic Laboratories, Inc. — **Booth No. A-11**
Columbus, Ohio

Representatives for Similac and Cerevim will be most happy to discuss with you the merits and use of products in the field of infant and child nutrition.

Maico Hearing Service of Michigan — **Booth No. E-3**
Grand Rapids, Michigan

The display will consist of hearing aids and audiometers. The new type hearing aid is a small all-in-one instrument capable of amplifying the faintest sound 240,000 times. The new type Maico audiometer makes it possible for the first time to balance hearing so as to assist the doctor in a correct diagnosis of different type impairments.

Marion Phillips' Maternity Preparations — **Booth No. D-1**
Rochester, New York



Marion Phillips

Specifically formulated for the expectant mother, Marion Phillips' Maternity Preparations are accepted by the Committee on Cosmetics. These preparations are the modern, clean-cut answer to the problems peculiar to the expectant mother.

The twin emollients, Night Cream and Day Liquid, are aids in the prevention of striae and for lubricating the dry and stretching skin. The Night Cream is especially beneficial as a nipple cream. The hexachlorophene Cream Deodorant and the superfatted deodorizing Maternity Soap will prove of particular interest to you. There will be samples and literature available.

S. E. Massengill Co. — **Booth No. B-7**
Bristol, Tennessee

The S. E. Massengill Company invites you to visit Booth No. B-7 where several new Specialty Products are on display. Included in these Specialty Products are Tablets Obedrin and Tablets Khelisem.

Tablets Obedrin and the 60-10-70 Diet represent a new approach in the treatment of obesity. Special diet pads and descriptive literature are available on the new Obedrin Tablets. Khelisem (Massengill brand of visammin) is the enteric-coated pure crystalline khellin; indicated in the treatment of angina pectoris and

asthma. Representatives will be glad to discuss these and other products with you at the Massengill exhibit.

Mead Johnson & Co. **Booth Nos. E-7**
Evansville, Indiana **& E-8**

MEAD JOHNSON & COMPANY, Evansville, Indiana (Booths E-7 and E-8), will feature Lactum and Dalactum, convenient formulas of evaporated milk containing Dextri-Maltose; three water-soluble vitamin preparations, Poly-Vi-Sol, Tri-Vi-Sol and Ce-Vi-Sol; Fer-In-Sol, a palatable, highly concentrated solution of ferrous sulfate. Also Mulcin, a pleasingly flavored vitamin emulsion, for teaspoonful dosage, will be on display.

Representatives in attendance will be glad to furnish information regarding the above products.

Medical Arts Surgical Supply Co. **Booth Nos. C-3**
Grand Rapids, Michigan **& C-4**

Medical Protective Company **Booth No. C-16**
Fort Wayne, Indiana

Specializing Exclusively in Professional Protection since 1899, The Medical Protective Company provides representation at Booth C-16 familiar with all the complexities of professional liability by special training and long experience. An answer to your problems in the Doctor-Patient relationship is yours for the asking.

Merck & Company, Inc. **Booth No. B-14**
Rahway, New Jersey

MERCK & CO., Inc. (Booth No. B-14), features CORTONE, NEO-ANTERGAN and other medicinal products.

CORTONE, a hormonal substance, has produced striking clinical improvement in a number of conditions including Rheumatoid Arthritis, Acute Rheumatic Fever, Bronchial Asthma, and certain eye and skin diseases.

NEO-ANTERGAN, an antihistaminic agent, advertised exclusively to the medical profession, may be recommended for prompt, safe, symptomatic relief in hay fever and other allergic manifestations.

Wm. S. Merrell Company **Booth No. A-8**
Cincinnati, Ohio

For prompt, effective and COMFORTABLE relaxation of gastrointestinal smooth muscle spasm Merrell presents BENTYL Hydrochloride.

BENTYL is a high milligram potency non-narcotic antispasmodic with two-fold musculotropic and neurotropic action. Effective therapeutically without atropine-like side actions in functional gastrointestinal disorders.

BENTYL is particularly suited for prolonged administration without habituation or increased tolerance.

Meyer Chemical Company **Booth No. E-5**
Detroit, Michigan

The exhibit of the Meyer Chemical Company, Inc., will feature two Council on Pharmacy and Chemistry accepted ampuls:

Aminophylline
Sodium Ascorbate

as well as the new injection Folidozin which contains Liver Injection, Folic Acid and Vitamin B_{12}. Oral products to be shown are Council on Pharmacy and Chemistry accepted aminophylline tablets and the new hematinic capsule "Almetinic."

Middleton's, Inc. **Booth No. C-8**
Grand Rapids, Michigan

MIDDLETON'S, Incorporated, Jefferson Avenue at Wealthy Street, Grand Rapids, Michigan; Biologics and Ethical Pharmaceuticals; Hospital and Surgical Supplies; First-Aid Room and Physician's Office Furniture; Rental Service, Hospital and Fracture Beds, Splints, Invalid Chairs and Sickroom Equipment. Motion Picture Cameras and Projectors, Film and Complete Projection Service.

C. V. Mosby Company **Booth No. E-2**
St. Louis, Missouri

The latest in medical literature can be found at the C. V. Mosby Company Booth No. E-2, where you are invited to browse through the full volumes on display. Among the new books to be displayed are: Herrmann "Methods in Medicine," De-Sanctis-Varga "Pediatric Emergencies," Bray "Clinical Laboratory Methods," Consolzaio-Johnson-Marek "Metabolic Methods," Key-Conwell "Management of Fractures, Dislocations and Sprains," McGavack "The Thyroid and its Diseases," Brown-McDowell "Plastic Surgery of the Nose," Friedman "Modern Headache Therapy" and many others.

Muller's Shoe Store **Booth No. A-1**
Grand Rapids, Michigan

The Muller's Shoe Store exhibit will display all types of corrective footwear. It will include arch type footwear for men, women, and children by various manufacturers. Also orthopedic shoes such as club foot, surgical and pigeon-toed shoes for children. Also displayed will be several cut-ups on orthopedic shoe construction along with some corrective wedges and cork extensions.

National Drug Company **Booth No. B-5**
Philadelphia, Pennsylvania

The National Drug Company, pioneer in the clinical application of resin therapy, will feature NATRINIL, a cation exchange resin for the control of edema; RESINAT, a polyamine exchange resin for the treatment of peptic ulcer; and RESION, an intestinal adsorbent. Trained representatives will be in attendance to discuss our resin preparations and other specialties; Ammivin, AVC Improved, Benat, DTP Vaccine, and Natolone, as well as any of National's vast array of pharmaceutical and biological products.

Nepera Chemical Company, Inc. **Booth No. F-19**
Yonkers, New York

The Nepera display is devoted to two Council-accepted products. MANDELAMINE, for urinary antisepsis, is indicated in cystitis, pyelitis, prostatitis and urethritis. NEOHETRAMINE provides antihistaminic therapy with a notable absence of sedation and other side effects. Thus Neohetramine is particularly useful for daytime antihistamine medication.

Nestle Company, Inc. **Booth No. D-15**
Colorado Springs, Colorado

You are cordially invited to visit the Nestle's Booth, No. D-15, where specially qualified representatives will be on hand to answer your questions on any of Nestle's milk products—already best known and most used for babies 'round the world. New pieces of valuable professional literature will be available.

Wm. R. Niedelson Co. **Booth No. A-6**
Detroit, Michigan

The high degree of accuracy obtainable in Basal Metabolism testing with the new Jones "MULTI-BASAL" Unit, will be demonstrated, as well as the accepted STANDARD model, popular for its extreme simplicity in calculation and operating procedure.
The only permanent type paper, direct recording cardiograph, the CARDIOTRON will be on display, showing its exclusive paper and Prestomatic lead switching device for all and multiple chest leads.
The new PROFEXRAY 100-100 Tilt Table will be displayed for the second time in the state of Michigan.

Noble-Blackmer, Inc. **Booth Nos. A-12**
Jackson, Michigan **& A-13**

Your friendly representatives of Jackson will have 24 feet of booth frontage this year to better serve customers and friends. On display will be the latest Universal X-Ray equipment, Castle sterilizing equipment and lamps, as well as an assortment of surgical instruments and diagnostic equipment.

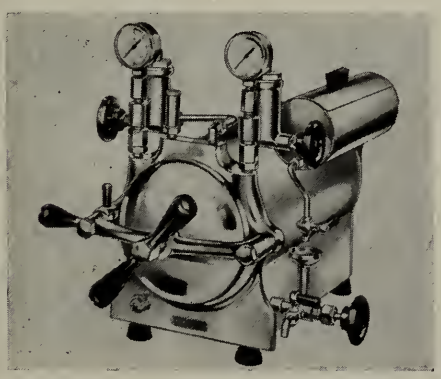
Ortho Pharmaceutical Corp. **Booth No. C-11**
Raritan, New Jersey

ORTHO cordially invites you to their display of "Gynecic Pharmaceuticals" at Booth C-11. Included will be ORTHO-GYNOL, ORTHO CREME and the ORTHO KIT, a new, convenient woven plastic bag containing the essentials for conception control.
NURTI-DISCS, a new precoital douche for selected cases of infertility, will also be featured.

Parke, Davis & Co. **Booth Nos. A-21,**
Detroit, Michigan **A-22, A-23 & A-24**

Medical Service Members of the PARKE, DAVIS & COMPANY Staff will be in daily attendance at the exhibit for consultation and discussion of the various products listed in the Pharmaceutic, Antibiotic, and Biologic Catalog. Important Specialties, such as Chloromycetin, Penicillin S-R, Benadryl, Vitamins, Oxycel, Thrombin Topical, Hypnotics, and others will be featured. You are most cordially invited to visit the exhibit with the assurance that your personal interest will indeed be very much appreciated.

Pelton & Crane Co. **Booth No. D-13**
Detroit, Michigan



The Pelton FL-2 Autoclave reduces minutes to seconds between sterilizing periods. Its 6" x 12" chamber is surrounded by an outer jacket that generates and stores steam under pressure for immediate use at any time. Built sturdily of brass and bronze, it will last for years.

Pet Milk Company **Booth No. D-19**
St. Louis, Missouri

Specially trained representatives will be in attendance to discuss the use of Pet Milk in infant feeding, and to present many services that are time-savers for busy physicians. Miniature Pet Milk cans will be given to visitors at the exhibit.

Philip Morris & Company **Booth No. C-1**
New York, New York

Philip Morris and Company will show the results of research on the irritant effects of cigarette smoke. These results show conclusively that Philip Morris are less irritating than other cigarettes. An interesting demonstration will be made on smokers at the exhibit which will show the difference in cigarettes.

Picker X-Ray Corp. **Booth No. E-9**
New York, New York

PICKER X-RAY CORPORATION invites you to visit an exhibit of the latest developments in high-powered diagnostic x-ray equipment. A staff of engineers and technicians will be in attendance to demonstrate the apparatus and furnish all pertinent data.

Procter & Gamble Company **Booth No. A-3**
Cincinnati, Ohio

The Procter & Gamble Company offers a series of time-saving leaflet pads for doctors, "Instructions—Routine Care of Acne," "Instructions—Bathing a Patient in Bed," "Instructions—Bathing Your Baby," "Hygiene of Pregnancy," and "Home Care of Bed-fast Patient." There will also be samples of other material prepared for physicians.
Mrs. Christyne Schwab in charge.

Professional Management **Booth No. D-3**
Battle Creek, Michigan

PM

Residents and interns, as well as physicians now in practice, are invited to Booth No. D-3 for consultation with PM regarding Office Records—Office Design—Partnership Arrangements—Fees—Locations—Taxes or Estate Problems.

The Quarry, Inc. **Booth No. C-17**
Ann Arbor, Michigan

The QUARRY, INC., will have an interesting display of Allison Office Furniture, Leitz Microscopes and Rouy Photrometer. Birtcher Crystal Bandmasters, Challenger Diathermy and the Blendtome and Hyfricator. The Universal X-Ray will be displayed. New and interesting instruments will be shown.
The Ritter all-purpose table will be demonstrated.

Randolph Surgical Supply Co. **Booth Nos. B-11**
Detroit, Michigan **& B-12**

A. H. Robins Co., Inc. **Booth No. F-16**
Richmond, Virginia

Robins

The A. H. Robins Company display is featuring the sedative-antispasmodic, DONNATAL; the antirheumatic, PABALATE; the highly effective antitussive-expectorant, ROBITUSSIN; ALLBEE WITH C, high potency "B" complex capsules with ascorbic acid; and PHENAPHEN WITH CODEINE, our new analgesic. Robins' Medical Service Representatives will welcome the privilege of discussing with physicians attending the Assembly these and other products in the company's line of prescription specialties.

Rystan Company, Inc. **Booth No. B-6**
Mount Vernon, New York

Rystan will exhibit Council-Accepted Chloresium Ointment and Chloresium Solution (Plain), water-soluble chlorophyll preparations for tissue repair, control of secondary infection and deodorization in the treatment of acute and chronic wounds, burns, ulcerations and dermatoses. Among the other water-soluble chlorophyll preparations exhibited will be new Chloresium Tablets for oral and systemic deodorization.

Sandoz Pharmaceutical Division **Booth No. D-14**
New York, New York

It is with a great deal of pleasure and pride that Sandoz invites you to visit its Scientific Exhibit on Vascular Headaches in Booth No. D-14.
Representatives will gladly welcome you.

W. B. Saunders Co. **Booth No. A-5**
Philadelphia, Pennsylvania

All doctors attending the meeting of the Michigan State Medical Society are invited to visit Booth No. A-5, where Mr. Frank H. Patterson will display a complete line of books including Hyman's "Integrated Practice of Medicine," Hyman's "Progress Volume," Alvarez' "The Neuroses," Braasch & Emmet's "Clinical Urography," Campbell's "Clinical Pediatric Urology," Cecil's "The Specialties in General Practice," Meschan's "Atlas of Normal Radiographic Anatomy," and many other new books and new editions.

Schering Corporation **Booth No. B-8**
Bloomfield, New Jersey

Schering Corporation will exhibit the new metabolic steroid hormone, Methostan for treatment of protein deficient patients, together with Gynetone the new physiologically balance hormone combinations of Progynon-B and Oreton. Tricombisul Liquid and Tablets—the safest and most desirable form of sulfonamide therapy—will also be featured. Schering representatives will co-operate with visiting guests.

Julius Schmid, Inc. **Booth No. D-2**
New York, New York

The words "RAMSES" and "TUK-A-WAY" are registered trademarks of Julius Schmid, Inc., who will feature here RAMSES TUK-A-WAY KIT, the new Physician's Prescription Packet No. 701. See latest convincing demonstrations. Every RAMSES Gynecological Product is offered for use as directed by the physician exclusively, after examination of the patient. This means of protection is calculated to appeal to physicians and patients alike.

G. D. Searle & Co. **Booth No. A-25**
Chicago, Illinois

You are cordially invited to visit the Searle booth where representatives will be happy to answer any questions regarding Searle Products of Research.
Featured will be Banthine, the true anticholinergic drug for the treatment of peptic ulcers; Dramamine, for the prevention and active treatment of motion sickness; and Alidase, Searle brand of hyaluronidase which permits subcutaneous feedings at intravenous speed.
Other time-proven products of Searle Research on which information may be obtained are Searle Aminophyllin in all dosage forms, Metamucil, Katochol, Floraquin, Kiophyllin, Diodoquin, Pavatrine, and Pavatrine with Phenobarbital.

Sharp & Dohme, Inc. **Booth No. D-16**
Philadelphia, Pennsylvania

Clinical data from the laboratories of the Medical Research Division of Sharp & Dohme are featured in Booth No. D-16. The potentiating effect of a combination of the antibiotics, bacitracin and tyrothricin; the synergistic effect of penicillin in conjunction with the sulfonamides; and the use of Blood Group Specific Substances A and B in conditioning Group O blood, are of major interest.

Smith, Kline & French Laboratories **Booth No. E-4**
Philadelphia, Pennsylvania

RESODEC—Resodec is a revolutionary new development in the management of congestive heart failure. This remarkable substance produces the effect of cutting the patient's salt intake approximately in half. It does this by removing sodium from the contents of the intestinal tract and carrying it out of the body in the feces.

Stuart Company **Booth No. E-10**
Pasadena, California

The Stuart Company has a continuous exhibit demonstrating the bland taste and complete solubility of the Stuart Amino Acids. This product is the first complete amino acids product for oral use. Due to its complete solubility, the Stuart Amino Acids is the ideal amino acids product for tube feeding. It contains all the amino acids and only amino acids.

E. R. Squibb & Sons **Booth No. A-7**
New York, New York

Testagar & Co., Inc. **Booth No. A-10**
Detroit, Michigan

The professional service representatives of Testagar & Co., Inc., will be very pleased to welcome their many friends to view many new modern developments in the pharmaceutical field which will be displayed at Booth No. A-10. Literature on some of the latest developments in the pharmaceutical field will be available. Vials and ampuls will be displayed: such as, Sodium Ascorbate, Testosterone Propionate, Heparin, et cetera. Requests for samples, literature, or technical information will be welcome.

Upjohn Company **Booth Nos. D-17**
Kalamazoo, Michigan **& D-18**

Although our exhibit at the Michigan State Medical Society meeting in Grand Rapids will feature the anticoagulants, Heparin, Depo-Heparin, and Dicumarol, Upjohn men will be on hand to discuss other products of interest to the visiting physicians.

U. S. Vitamin Corporation **Booth No. E-14**
New York, New York

Exhibit demonstrates the greatest vitamin technicological advance of the present decade—"oil-in-water" multivitamin solutions.
Includes new VI-AQUA, the first completely water-soluble multivitamin formula in capsules . . . VI-SYNERAL INJECTABLE, the first aqueous parenteral multivitamin solution, ready for immediate injection . . . also, the original (since 1943) oral aqueous multivitamin formula, VI-SYNERAL VITAMIN DROPS.
Professional samples and literature distributed on these pharmaceutical "firsts" along with our full line of nutritional specialties, including Methischol, Co-Salt, Tri-Sulfanyl, Vi-Syneral Capsules, Poly-B, Vi-Litron and others.

Vaisey-Bristol Shoe Co., Inc. **Booth No. A-17**
Rochester, New York

Jumping Jacks are the especially designed shoes for children. They are not a small model of an adult shoe. They are made to encourage correct walking habits and by allowing the feet to exercise almost as though walking barefoot, they help to develop strong healthy feet and muscles.

Varick Pharmacal Co. **Booth No. F-8**
New York, New York

Varick Pharmacal Co., Inc.-E. Fougera & Co., Inc., cordially invite physicians to discuss with professional representatives new preparations of importance to their every-day practice. These preparations would include Digitaline Nativelle, Diasal, Aveeno, Polysorb, et cetera. Literature and samples will be available on all products.

Westinghouse X-Ray Company **Booth No. C-15**
Detroit, Michigan

The central theme will be an 8-bank illuminator which will be used to display colored translites of the latest in Westinghouse X-Ray equipment. In addition, there will be adequate arm chairs and ash trays for all visitors.

White Laboratories, Inc. **Booth No. E-6**
Newark, New Jersey

White Laboratories, Inc., will have an interesting and unusual display—the latest products of White's research. Courteous Medical Service Representatives in attendance will appreciate the opportunity to discuss with you the clinical background and therapeutic merit of these and other White's products. You are cordially invited to visit this booth.

Winthrop-Stearns, Inc. **Booth No. F-1**
New York, New York

WINTHROP-STEARNS

WINTHROP-STEARNS, INC., New York, invites you to visit Booth No. F-1, where the following products will be featured—NEO-SYNEPHRINE THENFADIL, nasal solution, potent vasoconstrictor with antihistaminic, for common cold, allergic rhinitis, acute and chronic sinusitis; CREAMALIN, non-alkaline, non-absorbable antacid.

Wyeth, Incorporated **Booth No. E-12**
Philadelphia, Pennsylvania

Pondets with Bacitracin, delicious hard, 20,000 units of penicillin and 50 units of bacitracin and Wydase, a highly purified hyaluronidase, will be featured along with such widely prescribed ethical specialties as S-M-A-, Purodigin, Sopronol, Propin Gel and Ophthalmic, Wycillin, Lentopen, Phosphaljel, Petrogalar, Conestron and Wyamine. Trained representatives will be on hand to supply literature and samples of many outstanding therapeutic agents.

Zimmer Mfg. Company **Booth No. E-17**
Warsaw, Indiana

Mr. Fisher extends a most cordial invitation to the members of the Michigan State Medical Society to visit his exhibit at Booth No. E-17. A complete line of fracture appliances and instruments will be on display. Items of special interest include the BROWN ELECTRO-DERMATOME (which cuts grafts with amazing speed, accuracy and ease, without the use of glue, cement, suction cups or tape). Also on display are ACRYLIC, NYLON & STAINLESS STEEL FEMORAL PROSTHESES — KUNTSCHER CLOVERLEAF INTRAMEDULLARY PINS & INSTRUMENTS, RUSH INTRAMEDULLARY PINS, WOODRUFF CUT PILOT POINT BONE SCREWS, OSTEOTOMES, GOUGES, RETRACTORS, SHIFRIN WIRE TWISTER, AND A NEW ALL RUBBER WALKING HEEL.

All Zimmer products are made of S-Mo stainless steel, completely inert in the tissues and cause no foreign body reaction. YOUR PROTECTION—LOOK FOR THE NAME ZIMMER.

HAVE YOU MADE YOUR HOTEL RESERVATIONS?

Michigan State Medical Society

86th Annual Session

Grand Rapids, September 26-27-28, 1951

As very few singles are available, registrants are requested to co-operate with the Committee on Hotels by sharing a room with another registrant.

Committee on Hotels, Michigan State Medical Society,
c/o E. J. Brunette, Secy.
Pantlind Hotel, Grand Rapids, Michigan

Please make hotel reservation(s) as indicated below:

Hotel.....(1st choice)

Hotel.....(2nd choice)

.....Single Room(s)

.....Double Room(s) for.....persons

.....Twin Bedded Room(s) for.....persons

Arriving September.....hour.....A.M.....P.M.

Leaving September.....hour.....A.M.....P.M.

(Names and addresses of all applicants including person making reservation.)

Name	Address	City	State
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Date..... Signature.....

Address..... City.....

Annual Reports

ANNUAL REPORT OF THE COMMITTEE ON COURSES IN MEDICAL ECONOMICS, 1950-51

Eight lectures were delivered by members of the Michigan State Medical Society to the senior students of both University of Michigan Medical School and the Wayne University College of Medicine. The subjects covered were Rural Medical Practice, Medical Insurance Plans, Medical Public Relations, and Opportunities in Medical Practice.

Three additional lectures were given at Michigan on Office Management and Records. Plans are being made to include a similar series at Wayne for next year.

The student body and both deans were appreciative and fully co-operative in this MSMS project.

Respectfully submitted,

E. F. Sladek, M.D., *Chairman*
L. F. Foster, M.D.
J. S. DeTar, M.D.
E. A. Osius, M.D.
John R. Rodger, M.D.

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ANNUAL REPORT OF THE COMMITTEE ON RHEUMATIC FEVER CONTROL, 1950-1951.

The Committee on Rheumatic Fever Control has had three meetings and contemplates one more before the annual meeting this fall. One meeting was held in Lansing, two in Detroit, and the contemplated meeting will be held in July at the time of the annual meeting of the Council at Mackinac Island. The activities of the Rheumatic Fever Control program are of a continuing nature in (1) Education to lay and professional groups, (2) Services to the patient, (3) Publicity, and (4) Financial. A discussion of these activities would be repetitious of last years report and need not be undertaken here. The Committee wishes to bring to the attention of the delegates several new developments which have not been publicized before:

1. Dr. Fred Lewy from the Rheumatic Fever Council of the American Heart Association spent several weeks in Michigan in the summer and fall of 1950 studying the Michigan program and he reported to the Committee some of his conclusions: (a) The Michigan program is unique in several ways, namely, it's the only one conceived and operated by a Medical Society, (b) It's the only one in which there is a team play of highly trained and capable physicians directing their attention in a sharply focalized way to a diagnostic problem for the benefit of not only the patient but the referring physician, (c) The program has made greater progress than corresponding subsidized programs elsewhere and at a total cost considerably less. He made recommendations which the Committee is trying to carry out. These recommendations for the most part embody activities which were planned at the original meeting of the Committee in 1945, namely, a better follow-up of the patient, greater use of ancillary services such as public health nursing, rehabilitation, education and occupational therapy.
2. In order to stimulate greater use of the diagnostic services available, the Committee studied the cost per patient at the various Centers and found that the laboratory fees were too high for this program. Through contacts with the hospital management at the different Centers fees are being sharply reduced and the hospitals are assuming their just position in this Community effort. The Committee feels this will go a long way toward making the services more available to those who are in most need of them.
3. Dr. Dean reports that there has been approximately a 400 per cent increase in the reported cases of rheumatic fever or rheumatic heart disease coming to the attention of the Crippled Children Commission since 1945. The Committee feels this is a very fine commentary on the results of its activities.
4. The Committee recommended and The Council concurred in establishing four fellowships each year for Center personnel in the amount of five hundred dollars each. The qualifications for these fellowships are as follows:
   1. That the Rheumatic Fever Control Committee establish four annual special fellowships for post-graduate study of Rheumatic Fever and Heart Disease.
   2. That the courses taken are to be approved by the Rheumatic Fever Control Committee of the Michigan State Medical Society or it's representative.
   3. That the qualifications of the applicant be as follows:
      (a) Active in one of the Rheumatic Fever Control Centers for a period of one year.
      (b) Recommended by County Medical Society.
      (c) Signify an intention to continue actively in the operation of the local Rheumatic Fever Control Center and the statewide program.
   4. That the fellowships be authorized to cover travel, per diem and registration fees up to a maximum of $500.00 each.
5. Progress is being made in developing new Rheumatic Fever Control Centers throughout the State.
6. As a measure of acceptance of our program at the National level, the Committee is honored by the appointments of its co-ordinator, Dr. Leon DeVel, to the Rheumatic Fever Committee of the American Academy of Pediatrics and also to membership on the American Council on Rheumatic Fever.

Respectfully submitted,

Frank Van Schoick, M.D., *Chairman*
Mr. P. C. Angove
Mr. Emmet Richards
P. S. Barker, M.D.
D. R. Boyd, M.D.
W. B. Cooksey, M.D.
L. T. Crane, M.D.
Carleton Dean, M.D.
L. Fernald Foster, M.D.
Thomas Francis, Jr., M.D.
J. H. Fyvie, M.D.
S. T. Harris, M.D.
J. A. Johnston, M.D.
E. C. Long, M.D.
M. F. Osterlin, M.D.
H. H. Riecker, M.D.
Saul Rosenzweig, M.D.

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ANNUAL REPORT OF THE SPECIAL COMMITTEE ON INCREASE OF STUDENTS GRADUATED FROM MICHIGAN MEDICAL SCHOOLS, 1950-51

As a result of medical and lay interest in the subject of needs for additional medical personnel for our state, Governor G. Mennen Williams appointed a committee consisting of Deans A. C. Furstenberg of Michigan and Gordon Scott of Wayne, together with Dr. L. F. Foster, Secretary MSMS, with specific instructions to study the

various facets of this problem and report to him. The study consisted of an analysis of physician—population ratios, distribution of physicians, analysis of the use of existing medical school facilities, and of the physical and professional additions necessary at both medical schools to reach an objective of increasing the number of medical students to supply the needs of our state. This committee should be commended for a most excellent and factual report.

This report, together with public and medical support, led to legislative granting of funds for the expansion of facilities at Michigan and particularly at Wayne medical schools. A material increase in medical graduates will result.

Respectfully submitted,
E. F. Sladek, M.D., *Chairman*
J. S. DeTar, M.D.
L. F. Foster, M.D.

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ANNUAL REPORT OF COMMITTEE ON IODIZED SALT, 1950-1951

The past year has been a very busy one for the Iodized Salt Committee.

Several meetings were held with the Nutrition Advisory Committee of Commissioner A. E. Heustis, M.D., of the State Health Department and arrangements were made for a re-survey of the school children in the four Michigan counties studied in 1923 and 1936. This survey which has long been urged by the National Goiter Study Committee is being completed this spring due to the fine work of Dr. J. K. Altland and his staff, which is hereby acknowledged with gratitude.

A survey was conducted by Mrs. Alice H. Smith of the Nutrition Section to determine the availability of iodized salt in the grocery stores in these four counties, whether it is adequately displayed and readily available and whether any attempt was being made to push the sale of this product.

We are continuing a study on the number of goiter operations done in Michigan each year.

Three meetings were held during the year, on July 13, 1950 and March 2, 1951, in Detroit and our final meeting on May 23, 1951, as guests of Dr. Richard L. Waggoner at St. Louis, Michigan. Dr. Waggoner kindly arranged a tour of the Michigan Salt Company and the speaker at a very pleasant afternoon meeting was Mr. John L. Giles of the Michigan Salt Company.

Respectfully submitted,
B. E. Brush, M.D., *Chairman*
H. A. Towsley, M.D., *Vice Chairman*
L. J. Bailey, M.D.
L. W. Gerstner, M.D.
C. F. Lemley, M.D.
D. E. Lichty, M.D.
R. D. McClure, M.D. (deceased)
R. C. Moehlig, M.D.
G. P. Moore, M.D.
G. J. Moriarty, M.D.
R. L. Waggoner, M.D.

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ANNUAL REPORT OF CHILD WELFARE COMMITTEE, 1950-1951

Reported continued co-operation with the Michigan Department of Health and the work of sight saving and hearing test programs.

Approved and made suggestions regarding the contents of a series of baby daily time cards for use by mothers of small children to be distributed through the health department.

Approved the publication of a new edition of nutrition pamphlets revised and illustrated in co-operation with the State Health Department.

Recommended clarification of adoption procedures in the State of Michigan, and help to prepare an article for The Journal MSMS covering these recommendations.

Endorsed the initiation of a pilot study of neo-natal mortality in co-operation with the committee on infectious diarrhea.

Recommended the deletion of Oscar Ewing's name from future pamphlets on Child Care and Welfare intended for public distribution.

Recommended that the definitions of "live birth and fetal death" as defined by the committee on health statistics of the world health assembly be adopted in this state.

Recommended that the licensing and inspecting of maternity homes and hospitals be transferred from the department of Social Welfare to the Michigan Department of Health.

Assisted in the preparation of TV programs for the State Medical Society.

Respectfully submitted,
R. J. Mason, M.D., *Chairman*
R. J. Albi, M.D.
S. S. Bernstein, M.D.
W. N. Braley, M.D.
Moses Cooperstock, M.D.
G. B. Corneliuson, M.D.
Carleton Dean, M.D.
K. P. Hodges, M.D.
R. M. Kempton, M.D.
K. C. MacPherson, M.D.
W. S. Nolting, M.D.
A. L. Richardson, M.D.
R. S. Simpson, M.D.
L. P. Sonda, M.D.
J. N. P. Struthers, M.D.
J. E. Webber, M.D.

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ANNUAL REPORT OF COMMITTEE ON DISTRIBUTION OF MEDICAL CARE, 1950-1951

There were two meetings of this committee during the year. Since this was the first meeting of this committee in several years, the time was spent in exploring possible areas of the problem not already being dealt with by other committees of MSMS. Rather detailed reports were submitted to the committee by sub-committees on the following subjects: increasing the numbers of students in medical schools; overuse of Blue Cross, the pros and cons of using Federal funds for medical education; and the possibilities in the use of the preceptor plan in the teaching of medical students.

Respectfully submitted,
J. R. Rodger, M.D., *Chairman*
A. D. Aldrich, M.D.
H. E. Bagley, M.D.
C. D. Benson, M.D.
A. O. Brown, M.D.
H. F. Dibble, M.D.
B. J. Graham, M.D.
N. J. Hershey, M.D.
A. D. Hobbs, M.D.
A. H. Lange, M.D.
C. E. Merritt, M.D.
E. B. Miller, M.D.
I. S. Shembeck, M.D.
E. C. Swanson, M.D.

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ANNUAL REPORT OF ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY, 1950-1951.

The committee met once during the year and made several recommendations to The Council. These recommendations were favorably received and acted upon.

The committee was represented at all meetings of the Woman's Auxiliary.

The committee feels that greater support should be given the Woman's Auxiliary in their efforts to com-

pletely organize the few remaining counties that do not have an Auxiliary.

The Committee wishes to commend the Auxiliary on their splendid work and especially the officers whose unselfish contribution of time and money makes the Auxiliary the potent organization that it is.

Respectfully submitted,
A. M. Rothman, M.D., *Chairman*
M. A. Darling, M.D.
L. J. Gerrlings, M.D.
N. J. McCann, M.D.
H. B. Zemmer, M.D.

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ANNUAL REPORT OF THE MENTAL HYGIENE COMMITTEE, 1950-1951

The Mental Hygiene Committee of the Michigan State Medical Society has had five meetings during the past year. The meetings have been particularly well attended, six of the members of the committee attending all of the five meetings. The Chairman is particularly grateful to the members of the committee for their co-operation both as a group and individually. At the first meeting of the committee, it was decided to appoint subcommittees as follows:

A. To co-operate with the Governor's Commission on Sex Deviates:
   Dr. Ralph Kernkamp, *Chairman*
   Dr. Harry August
   Dr. John Dorsey
B. Legislation having to do with Mental Health:
   Dr. H. B. Zemmer, *Chairman*
   Dr. W. W. Dickerson
   Dr. O. R. Yoder
C. Academic Education:
   Dr. Thomas J. Heldt
   Dr. Ivan C. Berlien
D. Agenda
   Dr. George Fink
   Dr. O. R. Yoder

The functions of these committees was interpreted broadly and they have functioned in overlapping areas.

Important recommendations made to the Council were:

1. That the Michigan State Medical Society support the Bond Issue for the Mental and Tuberculosis Hospital Construction.
2. Preparation of an article on Civil Defense to be published in The Journal of the Michigan State Medical Society.
3. That the Michigan State Medical Society recommend the appointment of a Study Commission by the Governor. The purpose of this commission would be to study the text book presentations of biological sciences and personality development and to consider suggestions for the inclusion of certain material. This recommendation was considered to be particularly important because of the need for better instruction of children in schools concerning sexual attitudes and understanding in the hope of furthering the personality development of students.
4. That since the need for more psychiatric facilities in general hospitals was serious, the Michigan State Medical Society should support this development.

Numerous topics in the field of Mental Hygiene and Mental Health have been discussed at these meetings. Recommendations have been made concerning material referred to the committee by the Council of the Michigan State Medical Society.

Much discussion occurred concerning the responsibility of the committee. In a letter from President Umphrey, he indicated that anything which concerned the mental health of the people of the State is a problem for the consideration of this committee. In addition, he indicated that any material having to do with the problem of the sex deviate should be referred to this committee. Some of the members of the committee were kind enough to outline what they considered to be the responsibilities of the committee in considerable detail. The consensus of opinion appeared to be that not only should the committee function as a source of expert opinion on matters in the field of Mental Hygiene, and as a source of information for the Council of the State Medical Society, but that it should be also considered within the purview of this committee to function as a research group and action committee upon specific problems which might be considered particularly pertinent and that recommendations which might result from such function should be referred to the Council with the hope that it would receive the approval of the State Medical Society.

Of particular significance, was one problem for which it was felt sound advice might be developed. This had to do with the proper type of training in biological function and personality development in the primary and secondary schools. It is respectfully suggested that this be a major item of business to be considered by the Mental Hygiene Committee for the ensuing year. Perhaps positive recommendations regarding the above could be made through the Council to the Special Advisory Committee to the State Board of Public Education. It is further suggested that a special study of psychiatric problems of civil defense be placed on the Agenda of the committee for 1952.

Means by which the function of the Commission for the Department of Mental Health might be strengthened was discussed and it is hoped that suggestions may develop from discussion of this topic during committee meetings of the next year. As a result of the discussion at the last meeting, a recommendation is to be made to the Council that the State Medical Society emphasize the need for the Governor to keep at least two medical men, preferably psychiatrists, on the Commission of the Department of Mental Health at all times.

The general feeling of the committee was that it had enjoyed the opportunity to serve the parent society during the past year and it is hoped that something of value came from these meetings.

Respectfully submitted,
R. W. Waggoner, M.D., *Chairman*
H. E. August, M.D.
I. C. Berlien, M.D.
F. P. Currier, M.D.
W. W. Dickerson, M.D.
J. M. Dorsey, M.D.
T. J. Heldt, M.D.
L. E. Himler, M.D.
M. H. Hoffman, M.D.
C. G. Jennings, M.D.
R. F. Kernkamp, M.D.
H. A. Luce, M.D.
Morris Marks, M.D.
F. O. Meister, M.D.
R. A. Morter, M.D.
C. J. Poppen, M.D.
LeMoyne Snyder, M.D.
O. R. Yoder, M.D.
H. B. Zemmer, M.D.

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ANNUAL REPORT OF THE MATERNAL HEALTH COMMITTEE, 1950-1951

Meetings were held November 7, 1950, February 6, 1951, and May 24, 1951. There were three meetings of the subcommittee on Maternal Mortality Study. In addition, the chairman attended a meeting of the Venereal Diseases Committee in January; several other minor items were settled in committee or by the chairman in private communications.

The committee, during the year, has studied the following items thoroughly and recommends the State Society give serious consideration to them:

1. *Parent Education.* We have surveyed the state to find out how many organizations and lay groups are

giving courses and lectures on maternal and infant health. A move is being made to assist them and thereby control the information given out.

We strongly recommend the promotion of parent classes in maternal health through the various media of newspapers and radio programs. The medical practitioners and medical societies must take the leadership in the education of parenthood classes. We cannot understand the resistance on the part of some doctors to these programs. It is the old question of whether we control these programs or belatedly come on the scene and try to repair the damage done.

2. *Licensing of Maternity Homes and Hospitals.* This is the most important problem facing the profession at present.

The committee petitions the Legislative Committee of The Michigan State Medical Society to draw up the necessary legislation for transfer of the licensing of maternity homes and hospitals from the Michigan Social Welfare Commission to the Michigan State Health Department. The Michigan Social Welfare Commission has functioned under Act 263 of the Public Acts of 1913 (Sections 331.401—331.407, C.L. 1948) for all hospitals receiving Federal Aid. I quote from the Commission's Sixth Biennial Report to Governor Williams: "The Commission recommends that the maternity home and hospital licensing law be amended to make the State Health Department the licensing agency, but providing that the rules and regulations issued by the Health Commissioner relating to social planning for infants born in the hospitals to be established after conferring with the Social Welfare Commission."

3. *The Maternal Mortality Study.* The maternal mortality study begun one year ago was pushed vigorously this year. We suggest early reporting of maternal deaths and the publishing of annual reports in The Journal MSMS. The reviewing committee should submit cases of educational value for monthly publication. Analysis now reveals that 50 per cent of the 107 maternal deaths in Michigan during 1950 were preventable. Much can be done to eliminate these by proceeding with item two, namely, the licensing and control of maternity hospitals by the profession.

I am pleased to inform the Society that the committee has had excellent attendance throughout the year and I personally wish to thank President C. E. Umphrey, M.D., for giving me such an excellent group to work with.

Respectfully submitted,

H. A. Pearse, M.D., *Chairman*
W. H. Boughner, M.D.
G. M. Byington, M.D.
A. M. Campbell, M.D.
A. L. Foley, M.D.
L. E. Grate, M.D.
R. B. Kennedy, M.D.
H. W. Longyear, M.D.
S. T. Lowe, M.D.
H. C. Mack, M.D.
J. N. Scher, M.D.
L. C. Spademan, M.D.
P. E. Sutton, M.D.
D. W. Thorup, M.D.
C. E. Toshach, M.D.
Kathryn Weberg, M.D.
H. R. Williams, M.D.
P. W. Willits, M.D.

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ANNUAL REPORT OF PREVENTIVE MEDICINE COMMITTEE, 1950-1951

Since detailed reports of the numerous advisory committees appear currently in this issue of the handbook, only brief reference will be made to the excellent work and accomplishments of these component groups.

The rheumatic fever control program is becoming better established throughout the state and its preventive effort is beginning to assert itself in many communities.

The Cancer Control Committee has developed a close liaison with the Michigan State Dental Society, American Cancer Society, Detroit Institute of Cancer Research and various teaching institutions throughout the state. A program for high schools designed to develop a "non-frightening awareness" of cancer was one of the important projects for the year. A better correlation of lay and medical effort in cancer education for each community was also one of the prime objectives of the committee.

The Venereal Disease Control Committee has concerned itself with changes in incidence of gonorrhea and syphilis and exploration of improved methods for reporting that would track down sources of infection.

The Mental Hygiene Committee undertook the publication of a directory of all available psychiatrists in the State and the type of work for which each is available. It was also interested in the establishment of a neuropsychiatric institute at Wayne University and in the new psychiatric building program in the State.

The Iodized Salt Committee plans a survey of the incidence of goiter, to start in September, 1951.

The Scientific Radio Committee has arranged to increase the outlets for our scientific radio talks over the eight Michigan and the three Pennsylvania and Ohio radio stations.

The Industrial Health Committee had an especially active and fruitful year. It staged the Second Annual Industrial Health day in Detroit on April 4, 1951. It stimulated the committee on post-graduate medical education to introduce industrial medical subjects in its programs. It arranged for meetings with the committee of chairmen of the various county society industrial health committees and scheduled a number of "In-Plant" meetings between county medical societies and industrial concerns. It also encouraged research in industrial medical problems and investigation of the economic and medical-legal aspects of industrial medicine.

The Maternal Health Committee had several projects under way, most of these concerned with maternal and infant mortality reduction and reporting.

The postgraduate Medical Education Committee was busily concerned shaping its future educational programs to meet changing needs of the profession.

Throughout the year the committee has had most helpful co-operation from the State Health Department and Health Commissioner, Albert E. Heustis, M.D.

Respectfully submitted,

W. S. Reveno, M.D., *Chairman*
M. R. Burnell, M.D.
B. E. Brush, M.D.
W. B. Cooksey, M.D.
H. H. Cummings, M.D.
A. E. Heustis, M.D.
R. J. Mason, M.D.
H. A. Pearse, M.D.
H. W. Porter, M.D.
L. W. Shaffer, M.D.
J. M. Sheldon, M.D.
O. D. Stryker, M.D.
J. W. Towey, M.D.
Frank Van Schoick, M.D.
R. W. Waggoner, M.D.

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ANNUAL REPORT OF THE COMMITTEE ON POSTGRADUATE MEDICAL EDUCATION, 1950-51

The Committee on Postgraduate Medical Education reports that the extramural program was held in the following centers in the year 1950-51: Alpena, Battle Creek, Bay City, Cadillac, Flint, Jackson, Kalamazoo, Lansing, Midland, Mount Clemens, Muskegon, Traverse City, in the lower peninsula: and at Escanaba, Houghton, Iron Mountain, Ironwood, Marquette, Menominee, and Sault Ste. Marie in the upper peninsula.

The subjects given on the *Fall Program* were:

Bedside Diagnosis of Cardiac Arrhythmias.
Bleeding Lesions of the Gastrointestinal Tract.
Clinical Thyroid Diseases.
Diagnosis and Management of Intestinal Obstruction.
Diseases of Gall Bladder and Bile Duct: Bile Duct Stenosis.
Pathogenesis and Modern Concepts of the Etiology of Arteriosclerosis.
Practical Aspects of the Use of ACTH and Cortisone.
Pre- and Post-Operative Nutritional Requirements of the Surgical Patient.
Recent Advances in Treatment of Arthritis.
Recent Developments in Otolaryngology.
The Adrenals.
The New Trends in Pharmacology.
Therapy in the Menopause.
The Use of Isotopes in Clinical Thyroid Diseases.
Practical Approach to Functional Diseases.

The subjects given on the *Spring Program* were:

Anticoagulants.
Bleeding Esophageal Varices—Indications for Surgical and Medical Management.
Cardiac Failure. Mechanism and Treatment.
Diseases of the Rectum and Colon.
Examination of the Cardiac Patient.
Intestinal Obstruction. Diagnosis and Management.
Management of Disease Affecting the Spleen.
Nutritional Problems from the Medical and Surgical Viewpoints.
Pediatric Clinic: Convulsive Disorders. Enuresis.
Present Status of Surgery in Thyroid Disease.
Respiratory Diseases in Infancy and Childhood.
Selecting the Proper Antibiotic.
Surgical Correction of the Deformities of the Oral Cavity and Jaws.
The Adrenal Cortex in Surgery.
The Common Neurologic and Neurosurgical Disturbances.

Attendance 1950-51

Extramural Program	*Fall*	*Spring*	*Individual Physicians*
Alpena	19	17	23
Battle Creek	71	....	71
Bay City	36	39	60
Cadillac	....	32	32
Flint	47	49	77
Jackson	66	61	82
Kalamazoo	....	33	33
Lansing	75	44	88
Midland	31	41	53
Mount Clemens	36	32	46
Muskegon	72	48	87
Niles	40	....	40
Upper Peninsula			
Escanaba	15	23	26
Houghton	20	18	24
Iron Mountain	14	9	19
Ironwood	20	21	26
Marquette	26	19	32
Menominee	25	....	25
Sault Ste. Marie	17	25	27
TOTAL	630	511	871

The following named physicians participated in the extramural postgraduate teaching program during the year:

A. Axelrod, M.D.
Paul S. Barker, M.D.
Gaylord S. Bates, M.D.
Robert E. L. Berry, M.D.
Frank H. Bethell, M.D.
James B. Blodgett, M.D.
A. Braude, M.D.
William S. Bromme, M.D.
Robert W. Buxton, M.D.
Jerome W. Conn, M.D.
Kenneth E. Corrigan, M.D.
Russell T. Costello, M.D.
A. C. Curtis, M.D.
Marion S. DeWeese, M.D.
Ivan F. Duff, M.D.
F. Bruce Fralick, M.D.
A. C. Furstenberg, M.D.
Mark A. Hayes, M.D.
Fred J. Hodges, M.D.
Franklin D. Johnston, M.D.
John W. Kemper, M.D.
H. A. Klein, M.D.
Harrold J. Kullman, M.D.
Alfred M. Large, M.D.
Edward E. Levine, M.D.
D. W. McLean, M.D.
George Moriarity, M.D.
Reed M. Nesbit, M.D.
Aage E. Nielsen, M.D.
Clarence I. Owen, M.D.
H. Marvin Pollard, M.D.
A. E. Price, M.D.
A. Hazen Price, M.D.
William S. Reveno, M.D.
William D. Robinson, M.D.
Maurice H. Seevers, M.D.
John M. Sheldon, M.D.
Harry A. Towsley, M.D.
Elmore C. Von Der Heide, M.D.
Raymond W. Waggoner, M.D.
Robert K. Whitley, M.D.
James L. Wilson, M.D.

During the year 1950, seventeen physicians were recommended to the Michigan Foundation for Medical and Health Education for Fellowship certificates and forty-four physicians for Associate Fellowship certificates in Postgraduate Medical Education.

Intramural Activities

The Postgraduate courses listed below were given at the University of Michigan Medical School in 1950-51, with the following attendance:

ACTH and Cortisone	44
Allergy	10
Anatomy	35
Basic Sciences	28
Clinical Exercises for Practitioners	30
Clinical Internal Medicine	67
Clinical Neurology	26
Diagnostic Methods	25
Diagnostic Roentgenology	33
Diseases of the Blood and Blood-Forming Organs	17
Diseases of the Gastrointestinal Tract	12
Diseases of the Heart	13
Electrocardiographic Diagnosis	101
Foreign Physicians	20
Metabolism and Endocrinology	24
Miscellaneous	11
Obstetrics and Gynecology	11
Ophthalmology	117
Pathology	12
Pediatrics	18
Recent Advances in Therapeutics	25
Residents and Assistant Residents	210
Rheumatic Diseases	11
	900

The Committee on Postgraduate Medical Education held two meetings during 1950-1951. The fall meeting was held on December 14, 1950, and the spring meeting on May 24, 1951. Out of a committee composed of sixteen physicians, eleven attended the fall meeting, and fourteen attended the spring meeting. This attendance shows the active interest of this committee and without exception all of these members have made worthwhile suggestions and contributions to the work. The representative from the Upper Peninsula has attended nearly every committee meeting. This, indeed, shows interest and undoubtedly requires considerable financial sacrifice on his part. Some interesting suggestions have come out of the committee meetings: A change has been proposed to integrate the program for the western part of the Upper Peninsula with the Wisconsin Society's educational activities carried on in the western part of the Upper Peninsula. This problem is being studied at the present time in the hope that a mutually advantageous integration can be made of the work in that area.

Communications from Dr. Goldie B. Corneliuson, Chief of Maternal and Child Health Section, Division of Local Health Administration of the Michigan Department of Health, show continuing interest in postgraduate medical education programs of the State Society and a desire for more subjects on the program dealing with obstetrics and pediatrics for which her department has assumed the expense. The committee is glad to co-operate wholeheartedly with Dr. Corneliuson and her Division. It is hoped that this co-operation may be continued and more obstetric and pediatric subjects introduced into the programs throughout the State.

A study of enrollment in the various extramural teaching centers demonstrates the continuing interest of a large proportion of physicians of these areas. It is apparent to the members of the committee that the medical education work of the last twenty-five years in our larger centers of population has resulted in independent activities by the local county societies whereby continuing studies of medical advancements are available to the doctors in the hospitals, county society meetings, and in annual postgraduate programs locally arranged, at which outstanding speakers from out of state as well as in state are presented.

The committee has attempted to give credit for attendance on all of these activities. To this end notices

have been sent to chairmen of special meetings and to county societies asking for a complete list of physicians attending. An enrollment summary appears below. It is far from complete but it illustrates very well the large number of Michigan physicians who take advantage of these excellent postgraduate medical exercises.

Annual Coller-Penberthy Medical Conference. July 26-27, 1950, Traverse City	118
Annual Meeting, Michigan State Medical Society. September 26, 27, 28, 1950, Grand Rapids	2,205
Color Television Seminar. Wayne University. October 16-17, 1950, Detroit	549
Mount Carmel Mercy Hospital Clinic Day. January 31, 1951, Detroit	299
Jackson County Medical Society's Clinic Day. February 8, 1951, Jackson	69
Michigan Postgraduate Clin. Institute. March 14-15-16, Detroit	1,101
Calhoun County Medical Society's Clinic Day. April 3, Battle Creek	90
Second Michigan Industrial Health Day. April 4, 1951, Detroit	93
Sixth Annual Cancer Day. Genesee County Medical Society, April 18, 1951, Flint	198
Ingham County Clinic Day. May 3, 1951, Lansing	206
Wayne Alumni Clinic Day. May 9, 1951, Detroit	222
	5,050

The attendance on both extramural and intramural activities was well maintained. A slight decrease in the individual physicians attending the extramural program from 924 to 871 is due to a discontinuance of teaching programs in some of the larger centers, and possibly to the fact that many physicians, who are expecting military call, have been devoting most of their time to their practice of medicine and attending fewer meetings. A decrease in attendance on postgraduate medical programs has been noted throughout the country. This was true also of the Michigan Postgraduate Clinical Institute held in March, 1951, in Detroit.

The intramural attendance at the University of Michigan Medical School dropped from 970 to 900. The fact that a slight decrease in attendance has occurred could not be interpreted as an indication that postgraduate medical activities should be lessened throughout the state. Experience has shown that in times of threatened or actual war there is a lessening of attendance but immediately following cessation of hostilities and return of medical officers, there is a greatly increased demand for intramural and extramural instruction.

As in the past, each of the co-operating agencies has given fully of time and effort to make this work successful. Thanks are due to the members of the committee, to both our medical school faculties who have generously furnished leadership and teachers, to the State Department of Health through Dr. Corneliuson who has been most helpful to the Committee with suggestions and financial support, and to the officers of the State Society who have granted to this committee all requests and have made many valuable suggestions for the success of the program. Last, but most important of all, we should not forget the physicians of the State who by their continuing interest and faithful attendance upon medical education programs have demonstrated their appreciation of the opportunities provided for them.

Your committee has attempted to keep its activities flexible in order to meet changing conditions. We expect to continue this policy in the future.

Respectfully submitted,

H. H. Cummings, M.D., *Chairman*
E. I. Carr, M.D., *Vice Chairman*
B. R. Corbus, M.D.
G. J. Curry, M.D.
A. C. Furstenberg, M.D.
W. B. Fillinger, M.D.
L. J. Gariepy, M.D.
J. R. Heidenreich, M.D.
D. H. Kaump, M.D.
Alfred LaBine, M.D.
P. A. Riley, M.D.
J. M. Robb, M.D.
G. H. Scott, Ph.D.
J. M. Sheldon, M.D.
W. J. Smith, M.D.
E. D. Spalding, M.D.
F. A. Weiser, M.D.

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ANNUAL REPORT OF PERMANENT CONFERENCE COMMITTEE (WITH MICHIGAN HOSPITAL ASSOCIATION AND MICHIGAN NURSING CENTER ASSOCIATION), 1950-51.

This Committee, consisting of members representing each of the two above named groups and the Michigan State Medical Society, has met on five occasions during the fall of 1950 and the spring of 1951. The meetings have been held in Lansing because of the geographical convenience for the members. In addition, representatives of each group have attended meetings of the following committees: meeting of the Advisory Group of the Committee of Psychiatric Nursing of the Michigan Nursing Center Association, The Committee For the Improvement of Nursing Services of the Michigan Nursing Center Association, and a Working Conference for the Improvement of Nursing Service, on April 6 and 7, 1951, this latter having been co-sponsored by Michigan State College.

During the past year there has continued to develop among the component groups a more thorough understanding of each other's problems and a very fine spirit of willingness to co-operate in solving the problems affecting any of the component groups. As in the past few years, the most acute of these problems has been the need for more nursing care. This need is greatly felt throughout the state by hospital administration, by the doctors and by nurses responsible for nursing care. Consequently the work of the committee has been almost entirely devoted to the problem of the nursing shortage, and means by which it may be corrected.

A further review of the work of the St. Clair Conference of 1949 was made in the early fall. A review of the active and inactive nurses was considered and means by which some of the inactive might be brought into practice. The use of practical nurses and lay help to supplement the work of nurses in hospitals has been given a great deal of study and has been recommended by the committee. To help with the application of this recommendation, the Michigan Nursing Center Association had drawn up "Tentative Personnel Practices for Institutional Professional and Practical Nurses." These practices were studied in detail and reviewed to conform to the best thoughts of the doctors, administrators and nurses on the committee. Several meetings were devoted to this purpose and finally the results of this study were approved on May 23, 1951, and referred to each of the parent organizations of the committee members, with the recommendation that they be used as a guide to help institutions utilize to the greatest advantage the available nurses and practical nurses, and to give better understanding on the part of the individuals, of their positions within the nursing service.

The above steps were believed to be of aid in the most efficient use of the help at present available. Even more important was felt to be the education and training of new nurses and practical nurses, and a great deal of time, thought and discussion were given to this problem. All three of the groups have contributed helpful ideas and have agreed to do all each can to further existing programs of education and training and to institute new ones. In this effort, we have requested aid from various other bodies and have received offers of help, such as the following: from the Michigan Health Council, which on March 30, 1951 instructed its Executive Secretary "To

Contact the Michigan Nursing Center Association and offer to them the services of the Michigan Health Council in carrying to the people of Michigan, through the Community Health Council, the importance of the Recruiting Nurses Program as a part of our Total Medical Associates Recruitment Program."

It is planned to continue quarterly meetings of this committee for the discussion of problems common to the three member organizations.

Respectfully submitted,

E. G. Merritt, M.D., *Chairman*
C. G. Clippert, M.D.
J. D. Miller, M.D.
G. J. Moriarity, M.D.
Sarah S. Schooten, M.D.
E. M. Vardon, M.D.
J. A. Witter, M.D.

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ANNUAL REPORT OF THE SCIENTIFIC RADIO COMMITTEE, 1950-1951

During the year 1950-51, a total of forty-six scientific radio programs were prepared by members of the Michigan State Medical Society and of the faculties of the University of Michigan Medical School and Wayne University College of Medicine. These programs have been broadcast over thirteen stations in Michigan and three out-of-state stations.

Topics for these talks have included the fields of cancer, surgery, heart disease, allergy, pediatrics, first aid, and others that are of interest to the general public. As in the past, an attempt was made to co-ordinate the radio broadcasts with special drives of the Michigan State Medical Society. For example, during Cancer Month, a scientific program was presented relative to cancer; during Heart Week a program was given related to heart disease; because of the national emphasis on preparation in case of an atomic bomb attack, one program was devoted to that topic. The Committee as a whole has been most co-operative in obtaining speakers for the topics and we feel that the programs are being well received. There has been a wholesome upsurge of interest in medical subjects on the part of the lay public, as evidenced by the number of popular magazines that now carry at least one article per month in the field of medicine, and it is felt that the scientific radio programs help to foster and extend that interest.

As a result of our Committee meeting in November, we are now exploring the possibility of offering this medical series to all Michigan radio stations not now carrying them. We hope through the county medical societies of the State to reach a far larger audience than we are now serving.

This year the scientific program will be carried through the summer months again, making it a sustaining program. It will be greatly appreciated if any members of the State Society will volunteer to aid us in this worthwhile public service program of the Michigan State Medical Society.

Respectfully submitted,

J. M. Sheldon, M.D., *Chairman*
R. E. Boucher, M.D.
J. H. McMillin, M.D.
G. H. Scott, Ph.D.
K. W. Toothaker, M.D.
E. C. VonDer Heide, M.D.
J. E. Webster, M.D.
H. M. Pollard, M.D.

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ANNUAL REPORT OF COMMITTEE ON ATOMIC AND ALLIED PROCEDURES, 1950-51.

At the committee meeting held in November, 1950, the projects assigned to various members in the two previous meetings during the summer and fall were reviewed and discussed.

The Jackson mass blood typing project was presented by Drs. Schmidt and Ahronheim and discussed by the committee and invited guests interested in such matters.

The committee made plans for the special issue of The Journal to be released in March, 1951. Various topics were decided upon so that this number could be devoted entirely to atomic activity in all of its phases.

The committee, through its chairman, has continued to supply speakers to various groups and the county societies on atomic warfare. Information will also be supplied concerning films on this subject which are available.

It is felt that the committee being composed for the most part of physicists, chemists, and radiologists forms a permanent means of offering consultation on matters within its scope to medical groups or lay activities.

Respectfully submitted,

Arthur A. Humphrey, M.D., *Chairman*
H. F. Becker, M.D.
O. A. Brines, M.D.
J. E. Cole, M.D.
K. H. Corrigan, Ph.D.
John Grebe, Ph.D.
L. E. Holly, M.D.
Traian Leucutia, M.D.
Howard B. Lewis, M.D.
W. I. Mallmann, Ph.D.
A. B. McGraw, M.D.
W. J. Nungester, Ph.D.
Laurence L. Quill, Ph.D.

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ANNUAL REPORT OF COMMITTEE ON RURAL MEDICAL SERVICE, 1950-51

There were two meetings of the committee during the year. The following recommendations of the committee have been carried out: that an obstetrical clause be included in the Community Enrollment Blue Cross contract; that MSMS plan for and exhibit in the State Fair this year; leaves of absence for nurses to take the training course in preparation for teaching the Red Cross home nursing courses; a plan for school buses to be used as emergency ambulances in case of atomic disaster. The following resolutions are in process of being carried out: that all county medical societies, including those in rural areas, arrange for a rotation service for days off; that each county medical society establish an information and placement service committee to more fully determine the medical needs in their own areas.

Respectfully submitted,

J. R. Rodger, M.D., *Chairman*
W. B. Crane, M.D.
J. H. Fyvie, M.D.
O. R. MacKenzie, M.D.
W. H. Mast, M.D.
C. E. Merritt, M.D.
E. S. Oldham, M.D.
E. S. Parmenter, M.D.
F. R. Smith, M.D.
W. F. Strong, M.D.
O. D. Stryker, M.D.
H. B. Zemmer, M.D.

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ANNUAL REPORT OF COMMITTEE ON EMERGENCY MEDICAL SERVICE, 1950-51

Since the last report, this committee has met on August 23, 1950, January 3, 1951 and March 28, 1951.

During the past year, the chairman, Dr. Harry F. Becker, resigned and Dr. William H. Gordon was appointed to take his place. Dr. Becker presided over the meeting on August 23, 1950 and January 3, 1951. Dr. Gordon presided over the meeting on March 28, 1951.

Following is part of the work of the committee for the past year:

1. Compiled a list of books and manuals regarding civilian medical defense in case of emergency against air attacks or atomic bombing. These books and a list of films on the same subject are on file at the Michigan State Medical Society headquarters in Lansing.

2. The committee has appointed a sub-committee to correlate and integrate the different plans of the state in forming an over all medical plan in case emergency medical service is needed.

3. A second sub-committee was formed to formulate a standardized medical care for casualties of burns and shock as well as chemical, bacteriological and radiation warfare in case of attack.

4. Dr. W. H. Alexander represented our committee at the Sault Ste. Marie practice exercise on April 16, 1951.

5. Representatives of this committee attended all meetings of the various state committees dealing with medical phases of civil defense.

6. Suggestions for next year are:

   a. Better integration of various areas throughout the state by the sub-committee appointed to form an over all medical plan in case of emergency.

   b. Articles on burns, shock, chemical, bacteriological, and radiation warfare should continue to reach The Journal of The Michigan State Medical Society as a result of the work done by the sub-committee formed to set up a standardized medical care plan for all types of casualties.

7. The chairman of the committee attended the St. Louis meeting on Civil Defense. A report was sent to the Michigan State Medical Society headquarters in Lansing.

Respectfully submitted,
W. H. Gordon, M.D., *Chairman*
W. H. Alexander, M.D.
R. F. Hague, M.D.
S. W. Hartwell, M.D.
D. H. Kaump, M.D.
M. L. Lichter, M.D.
J. A. Ramsey, M.D.

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ANNUAL REPORT OF ETHICS COMMITTEE, 1950-51

A meeting was held on Friday, March 16, 1951, in Parlor F, Book-Cadillac Hotel, Detroit. The problems presented were not too difficult. A report of the minutes was given the State Council.

Respectfully submitted,
L. J. Morand, M.D., *Chairman*
D. C. Eisele, M.D.
W. L. Harrigan, M.D.
H. B. Hoffman, M.D.
W. E. Nesbitt, M.D.
H. W. Porter, M.D.
A. H. Price, M.D.

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ANNUAL REPORT OF THE PUBLIC RELATIONS COMMITTEE, 1950-51

Although the effort of Public Relations personnel was of necessity diverted to other MSMS activities during this year, the established pattern of widespread basic public relations activity was continued and in many respects amplified under the direction and leadership of the forty-seven members of the Public Relations Committee and the various Public Relations sub-committees. Because the actions of these sub-committees were so closely interwoven with the general public relations program they are not delineated as separate reports but are, rather, included under separate paragraphs in the report of the Public Relations Committee.

Results of the Public Relations activity were indicated in generous support of the medical profession given by the people through their legislative representatives, by a dearth of criticism of the MSMS *per se*, by a lessening of a critical attitude toward the medical profession generally and by a growing attitude of approval of the efforts of doctors of medicine to solve the health needs of the people on a voluntary basis. This latter has been indicated not only by complimentary messages but also by a replacement of destructive criticism with constructive suggestions for improvement.

We are at a critical public relations juncture at the present time due to the necessity for proving to the people that the progressive measures introduced by medicine were done so as a sincere and permanent effort rather than as propaganda gestures to assist in a campaign against the socialization of medicine. Such public relations activity must also be continued and supported so that the many friends gained by the medical profession are not lost due to failure on the part of the profession to continue its fight against socialism simply because the immediate threat of direct socialization of medicine has been slowed during the regime of the present Congress.

Inter-Intra Organizational Activity

The public relations activity in the field of organizational activity has reached a new high. Scarcely a single health activity in Michigan has been presented to the public which has not first been conferenced upon and assistance given by members or representatives of the MSMS.

The closest liaison has been kept with the Legislative Committee and with county medical societies in respect to legislation. This was carried out through 22 Legislative Bulletins and a constant barrage of letters and phone calls sent to 975 key persons. In addition there was a constant working relationship developed with Wayne University College of Medicine in respect to the Medical Science Building, and with both that institution and the University of Michigan Medical School in respect to legislative actions bearing upon the relationship with the Governor and the Legislature which involved both the sociological factor of supply and distribution of doctors and financial support for the institutions.

Special Committee on Education.—As the directing force in the CAP and Good Citizenship Campaign, the work of this committee largely culminated in the November, 1950, elections. However, it has continued its meetings as an ex officio executive committee of the Public Relations Committee and has given consideration to such matters as the television programs, Fair Exhibits, Information to legislative groups, the Michigan proposal to amend the United States Constitution relative to taxing power, political activity re 1950, and other important measures. Members of this committee are: L. W. Hull, M.D., Chairman, O. O. Beck, M.D., L. Fernald Foster, M.D., E. A. Osius, MD

Womans Auxiliary.—The past year has seen a great degree of co-operation with this valuable public relations minded group which today has its highest total of membership since it was organized. Its members have been active in the distribution of literature, securing of resolutions, contacts with schools, libraries and women's groups. And in connection with the CAP and "Good Citizenship Campaign" their help was invaluable. We have been able to assist them in the publishing of three bulletins and with the planning of their various meetings.

Commission on Health Care.—The brochure "In Planning Your Career" has become the leading publication in the field of medical associates. 5,445 requests for this brochure have been filed and it has been used by educational and legislative groups in Michigan and in nearly every state in the United States.

Committee on Rural Medical Service.—The result of co-operation with this committee was a highly successful

Fourth Annual Michigan Rural Health Conference. This Conference, started by MSMS, has become a fixed part of health activity in Michigan. Sponsored financially by the Michigan Foundation for Medical and Health Education, it has been joined in sponsorship by 62 other organizations. All other activities of the Rural Medical Service Committee such as rural civil defense activity, fair exhibits, rural hospitals, rural health surveys, et cetera, have been promoted through the public relations activity.

Scientific Committees.—Aid has been given committees such as the Rheumatic Fever Control Committee, Cancer Committee, Industrial Health Committee, Venereal Disease Committee, etc., throughout the year. The Michigan Heart Association liaison was materially aided in Rheumatic Fever publicity. Assistance has been given on all news releases of the Cancer Committee. Our public relations personnel were responsible for publicity given the Industrial Health Conference.

Advisory Committee on Michigan Health Survey.—This committee has concerned itself with the publishing of the Survey and the distribution of the report. 20,000 copies of the Survey have been distributed and reports have been prepared for the JMSMS and for public dissemination. Members of the Committee are: H. B. Zemmer, M.D., Chairman, W. B. Crane, M.D., W. H. Mast, M.D., E. S. Oldham, M.D., J. R. Rodger, M.D.

Committee on Education Programs in Schools and Universities.—This committee offered its help to all scientific committees in respect to contact with schools and universities. It set up a series of talks in high schools on "socialism and medicine" and called for reactivation of strong effort in the field of medical associates' education. Members of this committee are: D. B. Wiley, M.D., Chairman, R. C. Lingswood, M.D., J. J. McCann, M.D., J. W. Christie, M.D., E. B. Miller, M.D., A. H. Steele, M.D.

Liaison with Health Associations.—The strongest effort has been made and success encountered in developing working relationships with health organizations through the Michigan Health Council and its 29 local health councils. (See report of Michigan Health Council.) In addition preliminary meetings have been held with both Life Underwriters and other insurance groups. Very close co-operation, publicity wise, has been had with the Michigan Heart Association, Cerebral Palsy Foundation, the Infantile Paralysis Foundation, the United Health and Welfare Fund and others. It is impossible to recount here the hundreds of contacts made and advices rendered.

Service to Officers and The Council.—One of the primary duties has been to assist the Secretary and the Executive Director in matters of correspondence, rewriting, visitors, development of speeches, preparation of reports, etc. The total impact of this effort has been both very worthwhile and, of course, time consuming. Meetings with The Council and its Executive Committee have been attended in every instance for the purpose of both reporting progress, receiving instructions and being of assistance upon request.

Use of Media

Sometimes thought of as the complete public relations program is the use of the various media of communication. That this is not true is obvious. However, proper use of media is a definite important part of the public relations program and has been carried out as indicated below.

Committee on Newspapers.—Plans and projects for utilization of newspapers which are contained in the complete public relations program are formulated by the Committee on Newspapers. The Committee also concerns itself with the role of newspapers in special MSMS campaigns.

Committee activities include:

1. Advertisements: The Michigan State Medical Society placed advertisements in the *Michigan Farmer* and urged the advertisements be placed by others in co-operation with the AMA's campaign in the battle of opposition to compulsory health insurance ideas. Announcements and programs were also presented on Michigan radio stations in connection with this campaign.

2. The public relations between MSMS and Michigan's daily and weekly newspapers continued on a plane of mutual co-operation throughout the year.

Periodically, news releases and feature material were sent to all of the newspapers, both daily and weekly, in Michigan. A total of approximately 7,200 releases were issued by MSMS for the year.

Besides general news releases, special articles were sent to individual newspapers when the activities of doctors of medicine determined that the local interest in specific areas called for particular mention.

Each news release focuses attention on positive MSMS programs which offer the lay public a better program than socialized medicine.

The MSMS Annual Session in September, 1950, and the Michigan Postgraduate Clinical Institute in March, 1951, were publicized with special campaigns. The publicity for the Annual Session reached a top of 1,469 column inches of space. Comparable publicity was accorded the March Postgraduate Clinical Institute.

Advance news stories and other assistance was provided for the Industrial Health Day in April, 1951. Similar assistance was given the Cancer Control Committee on the occasion of the Annual Cancer Conference. Aid was also offered the Michigan Health Council for the Annual Michigan Rural Health Conference.

As a testimonial to the understanding existing between the medical profession and press and radio, an Upper Peninsula press-radio conference was conducted in Marquette in June, 1951.

Publicity on a local, state and national scale resulted from the appointment of Lunette I. Powers, M.D., as "Michigan's Foremost Family Physician."

3. Clippings: The Michigan Press Clipping Bureau supplied MSMS with proof of the co-operation of newspaper editors in publishing releases on the Michigan Medical profession. A large number of clippings were received each month.

Members of the Committee on Newspapers who accomplished these public relations objectives during the year are: C. L. Weston, M.D., Chairman, G. T. Aitken, M.D., William Bromme, M.D., R. A. Johnson, M.D., H. J. Meier, M.D., A. C. Pfeifer, M.D.

Committee on Public Relations Publications.—The MSMS continued to develop the distribution of successful publications of previous years, it also prepared and distributed many others in connection with the final months of the "Good Citizenship Compaign." Publicity has been received on a national scale in periodicals. In addition to these accomplishments, plans are under way for future projects. Following is a résumé of the committee activities:

1. An article will be written by Paul deKruif for publication in the *Reader's Digest* covering the splendid co-ordination between Michigan's doctors of medicine and the state health personnel. Much of the information used by deKruif is contained in MSMS Michigan Firsts.

2. JMSMS has published a series of articles on the public relations activity of MSMS. Currently another series of articles on Michigan Firsts is in production.

3. The popular Medical Associates brochure, "In Planning Your Career" has been widely distributed to schools, colleges and hospitals. Throughout the year a total of 5,445 copies have been sent out. The *Chronicle Press* of Moravia, N. Y., has listed the booklet for distribution.

4. The public relations work of MSMS received favorable comment in the September 18, 1950, issue of *Newsweek.*

5. The *Saturday Evening Post* published an article on pathology with Oliver W. Lohr, M.D., as the featured doctor.

Members of the Committee on Public Relations Publi-

cations are: K. H. Johnson, M.D., Chairman, L. Fernald Foster, M.D., L. T. Henderson, M.D., J. E. Livesay, M.D.

Committee on Cinema and Television.—The Committee on Cinema followed the policies of the over-all public relations program with integrated motion picture and television projects. The following public relations program was accomplished:

1. The MSMS motion picture "Lucky Junior" has been shown in 292 Michigan theaters. A total of 253 theaters have screened "To Your Health."

2. In answer to anti-medical propaganda a color motion picture is now in production which is entitled "To Save Your Life." The film, which will be used on television and for screening in Michigan schools, will depict the education, expense and sacrifice undertaken to become a doctor of medicine.

3. For the first time in 1951 MSMS pioneered in the medium of television. At present two highly successful TV shows are produced each week in Detroit.

4. The first video production was "It's Your Life." The show began December 17, 1950, and was sponsored jointly by MSMS and the Medical Arts Pharmacy, of Detroit. The half-hour production is presented each Sunday noon on WJBK-TV. A variety of topics are discussed by doctors of medicine on the shows which point up the organizational activities giving service to the layman. The program has been presented 43 times with each audience conservatively estimated at 300,000.

5. "Your Medical Mail Box" is produced weekly on WXYZ-TV in conjunction with the Bud Lanker program. The show, which began June 27, 1951, is televised each Wednesday at 10:30 a.m. Michigan doctors of medicine discuss topics of particular interest to women on this morning program. 14 programs have been presented. Listening audience for each, approximately 300,000.

6. Both productions receive a heavy response of mail.

The members of the Committee on Cinema are: Arch Walls, M.D., Chairman, R. F. Salot, M.D., A. E. Schiller, M.D.

Committee on Radio.—The Committee on Radio has progressed in the utilization of radio time in respect to the Michigan medical profession. The following activities were recorded:

1. The "Tell Me Doctor" series is carried on 26 Michigan radio stations. The popular daily radio show has completed its 1,500th consecutive broadcast.

2. The following stations now air the program: WJBK, Detroit; WDBC, Escanaba; WELL, Battle Creek; WHLS, Port Huron; WJIM, Lansing; WKZO, Kalamazoo; WATT, Cadillac; WLAV, Grand Rapids; WDMJ, Marquette; WMDN, Midland; WMLN, Mount Clemens; WSOO, Sault Ste. Marie; WIBM, Jackson; WATZ, Alpena; WHDF, Calumet; WMPC, Lapeer; WMRP, Flint; WHFB, Benton Harbor; WJPD, Ishpeming; WBCM, Bay City; WFYC, Alma; WKLA, Ludington; WTVB, Coldwater; WMIQ, Iron Mountain; and WCEN, Mount Pleasant.

3. Medical societies of Florida, North Carolina and Oklahoma are using the "Tell Me Doctor" series. The New Mexico Medical Society has expressed an interest in the program. Arrangements have been made to syndicate this popular program.

4. The program is commercially sponsored on a number of radio stations in Michigan.

5. Four broadcasts each year are planned by MSMS on a major Detroit station to give the medical viewpoint on topics of public interest.

The members of the Committee on Radio are: C. A. Payne, M.D., Chairman, G. T. Aitken, M.D., W. G. Gamble, Jr., M.D., W. J. Herrington, M.D., R. W. Teed, M.D.

Scientific Radio Committee.—The scientific radio programs presented by the University of Michigan in cooperation with MSMS continue to receive favorable comment from the listeners. A variety of subjects are discussed in these talks by Michigan medical men. An attempt has been made in the 1951 series to tie in the various health programs emphasized by MSMS through covers of the JOURNAL. Examples of these medical projects are February, crippled children; March, atomic medicine; September, arthritis and rheumatism; December, heart disease.

The Committee suggested that all presidents of county medical societies in Michigan delegate an individual member to explore the possibility of offering the medical series to all stations not now carrying them.

The Committee members are: J. M. Sheldon, M.D., Chairman, R. E. Boucher, M.D., J. H. McMillin, M.D., G. H. Scott, Ph.D., K. W. Toothaker, M.D., E. C. Vonder Heide, M.D., J. E. Webster, M.D., H. M. Pollard, M.D., Advisor.

Respectfully submitted,

L. W. HULL, M.D., *Chairman*	J. J. MCCANN, M.D.
G. T. AITKEN, M.D.	O. B. MCGILLICUDDY, M.D.
J. F. BEER, M.D.	H. J. MEIER, M.D.
E. W. BLANCHARD, M.D.	E. B. MILLER, M.D.
H. R. BODINE, M.D.	B. T. MONTGOMERY, M.D.
WILLIAM BROMME, M.D.	E. S. OLDHAM, M.D.
J. W. CHRISTIE, M.D.	H. F. OSTERHAGEN, M.D.
T. S. CONOVER, M.D.	C. A. PAYNE, M.D.
E. H. FENTON, M.D.	R. C. PECKHAM, M.D.
L. F. FOSTER, M.D.	J. R. PEDDEN, M.D.
R. A. FRARY, M.D.	A. C. PFEIFER, M.D.
W. G. GAMBLE, JR., M.D.	L. A. PRATT, M.D.
L. J. GRAVELLE, M.D.	W. Z. RUNDLES, M.D.
A. B. GWINN, M.D.	R. F. SALOT, M.D.
S. W. HARTWELL, M.D.	G. B. SALTONSTALL, M.D.
L. T. HENDERSON, M.D.	A. E. SCHILLER, M.D.
W. J. HERRINGTON, M.D.	A. H. STEELE, M.D.
H. C. HILL, M.D.	C. G. STEINKE, M.D.
A. B. HODGMAN, M.D.	R. W. TEED, M.D.
K. P. HODGES, M.D.	ARCH WALLS, M.D.
F. P. HUSTED, M.D.	C. L. WESTON, M.D.
K. H. JOHNSON, M.D.	A. H. WHITTAKER, M.D.
R. A. JOHNSON, M.D.	T. P. WICKLIFFE, M.D.
F. J. KEMP, M.D.	G. B. WICKSTROM, M.D.
R. C. KINGSWOOD, M.D.	D. B. WILEY, M.D.
J. E. LIVESAY, M.D.	J. A. WITTER, M.D.
J. E. MANNING, M.D.	V. M. ZERBI, M.D.

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ANNUAL REPORT OF COMMITTEE ON TUBERCULOSIS CONTROL—1950-51

The Tuberculosis Control Committee met at the Book-Cadillac Hotel, Detroit, on February 6, 1951. The following members were present:

J. W. Towey, M.D., J. A. Cowan, M.D., J. L. Egle, M.D., A. E. Heustis, M.D., R. C. Hildreth, M.D., W. L. Howard, M.D., V. C. Johnson, M.D., C. E. Lemmon, M.D., G. T. McKean, M.D., E. J. O'Brien, M.D., A. E. Price, M.D., C. J. Stringer, M.D. Other: R. F. Staudacher, Associate Public Relations Counsel for the MSMS.

The principal items brought up for discussion before the Committee at this meeting were as follows:

1. Management of recalcitrant tuberculosis patients. Dr. Cowan, Michigan Department of Health, presented the results of a survey of 19 recalcitrant patients. After some discussion, the motion was passed requesting that Dr. Heustis, State Health Commissioner, confer with the Attorney General to secure his interpretation of the rules and regulations which presently govern the internment of tuberculous recalcitrants in suitable institutions.

It was also recommended that this subject be reviewed at next year's meeting of this Committee.

2. Home care of tuberculous patients. It was agreed that the material regarding home care of tuberculous patients which was printed and disseminated to every MSMS member last year be repeated in the columns of

The Journal of the MSMS on several occasions this year.

3. Proposed revision of Michigan Tuberculosis Laws was presented to the Committee. It was requested that the various committee members send their comments and suggestions with the proposed revision to Dr. A. E. Heustis, State Health Commissioner, and also to the Chairman of the Tuberculosis Control Committee.

Respectfully submitted,
J. W. Towey, M.D., *Chairman*
J. A. Cowan, M.D.
J. L. Egle, M.D.
Cameron Haight, M.D.
R. J. Hanna, M.D.
A. E. Heustis, M.D.
R. C. Hildreth, M.D.
W. L. Howard, M.D.
V. C. Johnson, M.D.
C. E. Lemmon, M.D.
G. T. McKean, M.D.
E. J. O'Brien, M.D.
A. E. Price, M.D.
R. A. Rasmussen, M.D.
C. J. Stringer, M.D.
G. C. Tornberg, M.D.
B. R. Van Zwalenburg, M.D.
A. M. Wehenkel, M.D.

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ANNUAL REPORT OF COMMITTEE ON INFECTIOUS DIARRHEA, 1950-51

Four meetings were held during the year by the Infectious Diarrhea Committee.

After reviewing the work done by the committee in previous years, and the present status of infectious diarrhea in the state, it was decided that the committee would concentrate its efforts on the problem of epidemic diarrhea in the new born, up to one month of age.

At each meeting of the committee the status of the disease and reports of new outbreaks in the state in the interim since the last meeting were reported and discussed. Dr. G. D. Cummings of the Laboratories of the Michigan Department of Health was of great value to the committee because of his first hand knowledge of any outbreaks which might have occurred.

It was decided that short articles should be presented for publication in the Journal of the Michigan State Medical Society. Such articles are being prepared by various members of the committee and will, when completed with the aid of the Michigan Department of Health, be compiled into a brochure for distribution to all members of the Michigan State Medical Society.

The titles of these articles will be Introductory Article, Etiology and Classification, Symptomatology and Diagnosis, Prevention, Treatment, and Public Health and Public Relations Aspects.

Respectfully submitted,
O. D. Stryker, M.D., *Chairman*
Bernard Bernbaum, M.D.
G. D. Cummings, M.D.
W. L. Harrigan, M.D.
R. M. Kempton, M.D.
J. H. Lewis, M.D.
K. W. McLeod, M.D.
S. W. Miller, M.D.
J. G. Molner, M.D.
I. W. Sander, M.D.
R. K. Whiteley, M.D.

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ANNUAL REPORT OF SUBCOMMITTEE OF OPHTHALMOLOGISTS OF CHILD WELFARE COMMITTEE, 1950-51

The Subcommittee of Ophthalmologists of Child Welfare Committee was appointed as an advisory committee to Dr. Goldie Corneliuson of the Michigan State Department of Health.

The purpose of the Michigan Vision Program, developed by the Maternal and Child Health Section of the Michigan Department of Health, is to promote better vision for children. Assistance is given local communities in the development of sound programs which include emphasis on:

1. Community Education
2. Instruction regarding case finding techniques
3. Follow-up children with eye defects
4. Co-operation with educators in the development of sight-saving programs.

The purpose of the persons in charge of the work of the Maternal and Child Health Section is to screen children in the public schools throughout the state to detect those who have poor vision, as for example is done in the city of Detroit by the Department of Health. When cases of defective vision are found they are referred to the doctors in the vicinity. The Maternal and Child Health Section would like the endorsement of the State Medical Society.

The Committee met on September 20, 1950. The conclusions and recommendations of the Committee of Ophthalmologists were as follows:

1. Committee unanimously approved the vision program and recommended that it be expanded.

2. Committee recommended that telebinoculars should not be used for vision screening in the schools.

3. Committee recommended that there should be more active interest on the part of ophthalmologists in local vision programs. (This would include participating in community planning for the program and instructing office personnel to report on recommendations made by the ophthalmologists on children referred and the results of the ophthalmological examinations.)

4. Committee recommended that the State Society should give attention to the working out of this program through continuation of a committee.

Respectfully submitted,
Ralph H. Pino, M.D., *Chairman*
W. D. Irvin, M.D.
W. S. Jones, M.D.
A. D. Riker, M.D.
F. A. Barbour, M.D.

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ANNUAL REPORT OF MSMS COMMITTEE OF SEVEN TO STUDY THE BASIC SCIENCE ACT, 1950-51

This committee met February 15, 1951, and June 4, 1951, at Detroit, Michigan. After due consideration, it was the consensus of this committee that the Basic Science Act is fundamentally a good Act. It was also the opinion of this committee that one change in the present Act should be made and that some additions to the Act might improve the Act and the administration of the Act to the benefit of the people of the State of Michigan:

This committee, therefore, recommends the following:

1. That the Act be amended so as to omit the examination in "public health and hygiene."

2. That legislation be recommended providing that the records of the Board of Examiners in the Basic Sciences be deposited with the Secretary of State and be made available for public inspection.

3. That legislation be recommended providing that nobody who has satisfactorily passed an examination in the Basic Sciences shall be required to submit a second time to an examination in the same Basic Sciences for the purpose of determining his fitness to practice medicine and surgery in the State of Michigan.

4. That legislation be recommended that will permit interns and residents to train in Michigan hospitals with-

out the necessity of passing the Basic Science examination.

5. That legislation be recommended providing that whenever a member of the Board of Examiners in the Basic Sciences shall have served two consecutive terms, he shall not be eligible for re-appointment until the expiration of ten years after the end of his second term.

Respectfully submitted,
J. D. Miller, M.D., *Chairman*
W. B. Harm, M.D.
J. Joseph Herbert, LL.B.
J. E. Livesay, M.D.
J. H. Schlemer, M.D.
E. D. Spalding, M.D.
D. B. Wiley, M.D.

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ANNUAL REPORT OF MSMS LIAISON COMMITTEE WITH MICHIGAN STATE PHARMACEUTICAL ASSOCIATION, 1950-51

No problems have arisen during the year 1950-51 that required a meeting of this committee.

Respectfully submitted,
J. D. Miller, M.D., *Chairman*
C. G. Clippert, M.D.
C. W. Colwell, M.D.
E. G. Merritt, M.D.
G. H. Rigterink, M.D.

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ANNUAL REPORT OF MSMS LIAISON COMMITTEE WITH MICHIGAN HOSPITAL ASSOCIATION, 1950-51

This committee met once during the year at which time the following topics were discussed:

1. Shortage of trained technical hospital personnel.
2. Progress in planning changes to facilitate licensing of hospital residents.
3. Status of relations between hospital boards of trustees and hospital staff members.
4. Initiation of a program for interchange of ideas between hospital administration and practicing physicians on a state-wide level.

The committee recommends that:

1. A program of transfer of information be given each group through the respective bulletins and journals of the Hospital Association and the Michigan State Medical Society.
2. The liaison committee as established between the Michigan Hospital Association and the Michigan State Medical Society be given greater consideration as a medium for the presentation, study and exchange of mutual problems.

Respectfully submitted,
J. D. Miller, M.D., *Chairman*
J. E. Livesay, M.D.
E. G. Merritt, M.D.
Ralph Wadley, M.D.
J. A. Witter, M.D.

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ANNUAL REPORT OF SPECIAL COMMITTEE TO MEET WITH MICHIGAN DEPARTMENT OF SOCIAL WELFARE, 1950-1951

Your committee met with the Welfare Commission first on November 28, 1950, at which time many problems connected with the medical care for public assistance recipients were discussed. The results were so mutually satisfying that your committee was made a part of a permanent advisory committee to the Department of Social Welfare. As such, we have met with the Commission four subsequent times, at an average interval of six weeks.

The medical and sanitation department of the Boys' Vocational School were inspected and recommendations made for their improvement at one of our meetings. A similar meeting is planned for the Girls' Training School in the near future. The new program of Aid to Disabled was thoroughly discussed and suggestions made to expedite its functions. Similarly, the other categorical assistance programs, such as, Old Age Assistance, Aid to Dependent Children, Aid to the Blind, have been or will be, completely reappraised and any necessary changes will be recommended.

Several definite accomplishments have resulted from this committee's work. A definition of prosthetic appliance:

Under certain conditions, an amount to meet the original cost and replacement, repair, and maintenance of a prosthetic device or corrective appliance may be included in the assistance budget as "medical care" on the recommendation of a doctor, or in the case of glasses, on the recommendation of either a doctor or an optometrist, provided the cost is not excessive.

A prosthetic device or corrective appliance is defined for this purpose as a device worn by the individual, i.e., attached to the body, to replace an absent part or to help a damaged organ to function more adequately.

Following are the conditions under which an allowance for a prosthetic device or appliance can be included in the budget:

1. When the device or appliance is an adjunct to medical treatment, i.e., is part of a treatment program, whether or not the client is still under close medical supervision; or
2. When it will improve or restore the functions of impaired or missing part or parts, as for example, glasses, hearing aids, and dentures; or
3. When the lack of a device or appliance would cause physical change or additional impairment of function; or
4. When without the device or appliance the physical appearance of the recipient is such as to constitute a barrier to employment for an otherwise employable person, or to preclude normal participation in activities which are a part of usual group and community relationships and which the individual otherwise would be able to engage in.

The amount included for a corrective appliance may include the cost of an examination to determine need for the appliance if this is not included in the cost of the appliance.

An amount to meet the cost of dentures may be included in the assistance budget as "medical care" provided a written estimate of cost is made by a doctor of dentistry and the cost is reasonable. The cost of necessary extractions may be included as part of the cost of dentures. An allowance for other dental services may be included in the assistance budget only if recommended by a doctor of medicine in connection with other medical services.

Because of maximum grants, it usually will be necessary for recipients to arrange to purchase devices and appliances on a monthly payment plan.

A rule of procedure providing that when a doctor examines a patient and does not recommend definitive services or a prosthetic device, the doctor's charge for such examination shall be paid.

Through our advice and efforts, including the Legislative Committee, the examination and licensing of Maternity Hospitals has been transferred to the Michigan Department of Health. This has been a duty set by law, but not properly under this Department. The Health Department has these facilities.

Following our suggestions, the State Law has been amended "To permit the State Department of Social Welfare to contract for either the cost of hospitalization or medical care or both for recipients, and pay the cost directly to the contractor. This will allow County Medical Societies of the Michigan State Medical Society

to contract to receive payments for these patients direct rather than wait for the patient to collect and pay his own bill.

The relationship between the Social Welfare Department and your Committee has been most cordial and it is unanimously felt that a great deal of good has already been accomplished. It is the desire of the Commission that this Committee be continued.

Respectfully submitted,
G. W. Slagle, M.D., *Chairman*
L. G. Christian, M.D.
Wilfrid Haughey, M.D.
R. J. Hubbell, M.D.
Mr. W. J. Maxey

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ANNUAL REPORT OF JOINT COMMITTEE ON STUDY OF MEDICAL PRACTICE ACT, 1950-51

Numerous meetings of this committee were held as a committee and jointly with a like Committee of the State Board of Registration in Medicine and with the Executive Committee of The Council of the Michigan State Medical Society.

The following recommendations of the committee have been approved by The Council, MSMS, that:

1. The preamble of the Act remain unchanged.
2. The requirement of selecting members of the Board from several schools of medicine be deleted.
3. The amended act retain provision that the Michigan State Medical Society submit panel to the Governor.
4. The amended act do not require the Governor to make his appointment from the panel.
5. The last sentence of section 1 of the present act be deleted.
6. The Act be amended so as to set the quorum at 6 members from 7 to 6, to permit no votes by proxy, to permit the majority of the quorum to take official action for the Board, except in matters involving the suspension, revocation or restoration of licenses, in which cases an affirmative vote of six will be required.
7. The act be amended to require two regular meetings each year but at dates designated by the Board.
8. The Act be amended to make passing grade 70 per cent.
9. The Act be amended to eliminate reference to "Class A Colleges" and substitute the expression "Schools or colleges of medicine approved by said board."
10. Delete from Section 3 (e) beginning with the following words: "An accepted applicant, etc." down to "Students of medicine, etc."
11. That passing the Basic Science Examination shall not relieve applicant from passing Part 1 of the Medical Examination.
12. To increase fees by doubling present fees.
13. To amend the Act so as to permit the Board to accept examinations given by other bodies in lieu of regular examinations given by the Board.
14. To amend the Act to allow the Board to grant and revoke temporary annual licenses to residents renewable over a period not exceeding five years, with certain restrictions per following: The Board shall have the power to grant temporary annual licenses to practice to Doctors of Medicine who are taking postgraduate education and who meet all qualifications and conditions for the practice of medicine, surgery and mid-wifery within this state excepting the making of application to be registered and certified and the taking of the examinations required by Section 3 of this act; provided that such person (a) makes application through his hospital superintendent and is approved by said Board for such training and (b) conforms to all rules and regulations promulgated by said Board with reference to such training and (c) confines his practice and training within a hospital or hospitals approved by said Board for such training and (d) neither he nor the hospital receives any fees for his services from any patients during the period of such training. The hospital shall be responsible for such training and any violation of this clause may cause it to be dropped from the lists of approved hospitals for such training. The fee for a temporary license shall be $10.00 per annum renewable for not more than five years. The violations of the provisions hereof by any temporary licensee herewith shall constitute cause for revocation of such temporary license.
15. The Michigan Hospital Association be advised that "Fellowships" are not recognized by the Medical Practice Act and that the question submitted is not germane to the functions of this Committee.
16. To extend the statutory definition of unprofessional and dishonest conduct so as to include the following "to represent or hold out to be able to cure or relieve human ailments by secret methods."
17. To amend the Act so as to permit the Board to suspend license in cases that a licensee has been adjudged mentally incompetent.
18. To add to the Act provisions for the holding of hearings by the Board on revocation, suspension, and restoration of licenses, to provide procedures therefore and to give the Board power to issue subpoenas.
19. To amend the Act so as to allow the Board to apply for injunctions to restrain persons from violating the Act and to require the Attorney General to represent the Board in such court proceedings.
20. To amend the Act so as to allow the Board to restore licenses on conditions prescribed by the Board.

These recommendations have since been submitted to the members of the State Board of Registration in Medicine and the following recommendations were received from that organization:

A. The increase in licensure and reciprocity fees be not passed as it would be out of line with other states.

B. That an annual registration fee for all Doctors of Medicine of $5.00 be approved (this money to provide means of financing better administration of the Medical Practice Act and the registration itself would give accurate information as to the doctors of medicine actually in practice in the State of Michigan).

C. If item B were approved by the Michigan State Medical Society, the Registration Board would approve the granting of temporary licenses without Basic Science or Licensure examination to Hospital residents in postgraduate training.

The committee feels the action on an annual registration fee should rest on action in this matter by the Michigan State Medical Society's House of Delegates..

The committee appreciates the excellent co-operation of The Council of the Michigan State Medical Society and the members of the State Board of Registration in Medicine, particularly that of Dr. Troost and the men of his joint committee in considering these questions, and feels that the final recommendations should be put in legal form to be submitted to the next Legislature.

Respectfully submitted,
W. B. Harm, M.D., *Chairman*
L. A. Drolett, M.D.
J. Joseph Herbert, LL.B.
J. D. Miller, M.D.
E. F. Sladek, M.D.

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ANNUAL REPORT OF LEGISLATIVE COMMITTEE, 1950-1951

The sixty-seventh Michigan Legislature convened on January 2 and adjourned June 30, 1951. A total of 849 bills were introduced during the five-month period. Sixty-nine of that number were of primary concern to or dealt directly with the practice of medicine and in consequence were of interest to members of the Michigan State Medical Society.

Several important measures and amendments sponsored or approved by the Michigan State Medical Society were enacted into law by the 1951 Legislature. No proposed legislation which would have lowered the present high standard of medicine was enacted into law in the 1951 session. No measure endangering the health of the people was passed. On the other hand, progress of great value was made in legislation which passed through the finely meshed legislative screen.

Bills Passed by the Legislature

S.B. 152— As passed, this bill provided that the State Health Commissioner will issue licenses, regulate and keep records concerning unmarried mothers in maternity homes or lying-in hospitals. This bill was recommended by the MSMS Council, the Legislative, Maternal Health, Child Welfare, and Venereal Disease Control Committees. Under S.B. 152, records, regulations and authority for inspection and licensing were transferred from the Department of Social Welfare to the Department of Health. Public Act 231.

S.B. 110 & 111 Originally provided that costs of hospital care for crippled and afflicted children would be determined by federal standards under a reimbursable cost formula. The bill was amended so that the cost for patients receiving acute hospital care was set at a maximum of $16.00 a day. Convalescent hospital care was set at a maximum of $10.00 a day. The county clause remains in effect. Public Acts 178 & 177.

H.B. 311—This bill provided old age assistance, aid to dependent children, to the blind and to persons permanently and totally disabled. In some cases the Social Welfare Commission may use Blue Cross-Blue Shield agreements. Public Act 264.

H.B. 319—The Advisory Council members were increased from 11 to 12 members under this amendment to the Michigan Hospital Survey and Construction Act. The 12th member shall be nominated by the Michigan Health Officers Association. Public Act 249.

S.B. 109— This bill allowed a public hospital fund to be transferred to a non-profit hospital corporation. A peculiar financial situation developed in Oakland County with a municipal fund raising campaign for a hospital. Certain interests were willing to donate funds in the project to a non-profit corporation but not to a municipal hospital. Consequently, special legislation was needed. Public Act 79.

S.B. 22 — This bill repealed the required psychiatric examinations of persons accused of murder. The section which was repealed had required that those charged with murder must be examined by three psychiatrists who were appointed by the State Hospital Commission. This section has no bearing on the right for an insanity defense in court. Public Act 170.

S.B. 82 — Created a Children's Institute Trust Fund within the office of the State Treasurer. Public Act 26.

S.B. 186— Allowed the services of chiropodists to be included in aid given by the Michigan Social Welfare Department. Public Act 248.

S.B. 167— Concerned civil defense in which the Governor will have general direction and control and be granted the power to appoint a director and advisory council (upon which medicine has representation), set up an agency to prepare plans, co-operate with federal and local authorities, enter into reciprocal agreements, have powers of seizure and condemnation as well as preparing mobilization and evacuation plans. Public Act 203.

S.B. 146— Decided qualifications for barbers. Public Act 165.

H.B. 495—This bill created a board of pharmacy with powers to withhold, revoke or suspend licenses. The board also had power to inspect drug preparation, investigate complaints, prescribe equipment, license stores, apprentices and regulate sales of poisons. The Michigan State Medical Society insisted on an amendment to provide that the act should not be construed to limit or affect the right of medical doctors to administer, dispense, compound or furnish drugs, poisons or other medical substances to their patients. Subsequently, the Governor successfully vetoed this proposal.

WORKMEN'S COMPENSATION—Of the *seven* measures pertaining to workmen's compensation, three passed and four failed to pass the Legislature. All of these measures were given close scrutiny by the Michigan State Medical Society and those which passed were not objectionable.

Bills Which Failed to Pass the Legislature

S.B. 222— This bill was introduced by the chiropodists to gain legislative approval for their inclusion under non-profit medical service plans. Michigan Medical Service contended the legislation was unnecessary as the same results can be achieved by negotiation. The bill was objectionable because it designated chiropodists as "physicians" and "doctors of surgical chiropody." S.B. 222 was reported out of the Senate State Affairs Committee. After a hearing and much effort, it was returned to Committee where it died.

S.B. 308— Would have created a medical examiners system and abolish the present coroner system. The measure remained in the Judiciary Committee.

S.B. 217— This chiropractic bill, which died in the State Affairs Committee would have opened areas of medical practice to chiropractors who are not qualified by education or training to participate in these fields. It would also have granted them the title of "Doctor of Chiropractic" and would have designated them as Chiropractic Physicians.

H.B. 463—This proposal sponsored by Chiropractors would have made state laboratories available to all licensed members of the healing profession. Chiropractors and similar healers need no laboratory service if they operate within the range of their licensing laws. The bill died in the Public Health Committee.

H.B. 477—If passed, this proposed repeal of the Basic Science Act would have been a victory for the chiropractors. The bill was the 1951 version of the perennial repeal attempt. MSMS believes the Basic Science Act satisfactory but has been working to improve its *administration*. The repeal attempt died in the State Affairs Committee.

S.B. 183— Proposed admendment to optometry law. If it had not died in the State Affairs Committee, the bill would have given professional status to optometrists. In addition it would have made other changes in the act to set up an examiners board and determine educational requirements.

S.B. 243— When it appeared that S.B. 183 had little chance of coming out of committee, this new optometric measure on practice and status of optometrists was introduced. It would give "eye mechanics" the same rights as a

trained ophthalmologist. Like its predecessor, S.B. 243 died in the State Affairs Committee.

S.B. 307— This bill sought to abolish the state board of examiners in optometry and transfer its duties and powers to the state board of registration in medicine. It died in the State Affairs Committee.

S.B. 91 — (H.B. 111) Provided for the enrichment of flour. This bill remained in the Agriculture Committee, but this important subject has been referred to an interim committee to study the need for enriching bread and flour.

H.B. 322—Concerned state aid to local public health units. The bill would have allowed the state to refund monies for county, district and city health departments on a percentage and population basis. This measure, introduced in previous years, was approved by the MSMS Legislative Committee but remained in the Ways and Means Committee.

H.B. 94 — This measure sought to establish that in all actions based on negligence, the defendant could not use as defense the fact that he was engaged in a charitable or eleemosynary activity. While this bill passed the House, it did not get out of the Senate Judiciary Committee.

H.B. 280—If passed, this bill would have required the written consent of the next of kin to perform an autopsy, post-mortem or dissection of a human body. This impracticable measure would have made a violation of same a felony instead of a civil matter. The bill died in the Judiciary Committee.

H.B. 479—Would have raised the passing grades for Doctors of Medicine on examinations by the Michigan State Board of Registration in Medicine. The Board did not sanction the bill. The measure remained in the State Affairs Committee.

H.B. 481—Sought to increase the passing mark requirements of osteopathy examinations. Died in the State Affairs Committee.

H.B. 514—A perennial which provided for the examination, regulation, licensing and resignation of naturopathy practitioners. Died in the State Affairs Committee.

S.B. 133— Would have provided that migratory labor must present a certificate showing they are not afflicted with tuberculosis before they can be employed. Passed Senate; died in House Public Health Committee.

S.B. 269— Provided for the keeping of hospital records; inspection, penalties. The patient's records would have to be retained for six years. The bill was reported out of the Health and Welfare Committee but was referred to the Judiciary Committee where it remained.

S.B. 310— Was a narcotic drug act which would have defined the addict and established the penalty for use or addiction. The measure passed the Senate but when it reached the floor of the House it was referred back to the House Judiciary Committee where it died.

S.B. 23 — Sought to provide sick, health, life and accident insurance for school employes from the general fund of the school district. Died in Senate Committee on Education.

S.B. 76 — Under this proposal, when three-fourths of the membership of clubs, societies and associations were sued it would constitute suit against all members. Remained in the Senate Judiciary Committee.

S.B. 268— Attempted to create an advisory council on affairs of the handicapped to work with the Commissioner of Labor and state agencies. Died in the Senate State Affairs Committee.

S.B. 284— Would have created a board of examiners for veterinary medicine and surgery. Failed to leave the Senate State Affairs Committee.

H.B. 96 —Sought to give counties the authority to pass ordinances in protection of public health. Died in the House Towns & Counties Committee.

H.B. 120—The state was to pay full costs of support for mentally ill Wayne Co. residents admitted to Wayne County General Hospital and Infirmary at Eloise. Remained in the House Ways & Means Committee.

H.B. 140—Would have added hospitalization to medical care for adults and children on general relief in Michigan and provided that the social welfare departments paid the costs. Died in the House Committee on Social Aid and Welfare.

H.B. 290—Would have allowed a community hospital board to issue self liquidating bonds based on tax levy pledges for a 30 year period. Proceeds of the tax were to be considered part of the revenues of the hospital. Remained in the House Towns & Counties Committee.

H.B. 296—Sought to provide out-patient facilities in Wayne County for treatment of needy persons suffering from mental disorders. Passed the House, but died in Senate Committee on Health and Welfare.

H.B. 392—Counties could require cities, townships and villages to remiburse them for payment of hospital care for afflicted indigent adults when these persons were hospitalized in another county—a perennial. Died in House Committee on Towns & Counties.

Appropriations

1. In the $306,000,000 state budget, $1,000,000 was granted to Wayne University as the first installment of $3,550,000 to construct a medical science building. The balance is expected to be paid to Wayne over the next three years. This was a project supported actively by the Michigan State Medical Society.

2. The Legislature voted $12,520,000 for mental hospitals and $4,600,000 for T.B. hospitals. The money will be appropriated from the $65,000,000 bond issue approved by the voters last fall for planning, acquiring and constructing such hospitals. Authority for the $12,520,000 in mental hospitals was contained in S.B. 172 which concerned the planning, construction and equipping of state mental health institions. In the original bill, $15,007,000 was asked. (Public Act 45.)

Of the $4,600,000 total appropriation for T. B. hospitals, $1,600,000 was authorized under H.B. 368 which provided the money to acquire a site, construct and equip the 200 bed Southwestern Michigan Tuberculosis Sanitorium at Kalamazoo. Public Act 166.

The remaining $3,000,000 (of the $4,600,000) for T.B. sanatoria was appropriated under authority of S.B. 116. Under this bill the cities, counties and the American Legion Hospital (tuberculosis sanatorium) at Battle Creek requesting funds from the Legislature for T.B. sanatoria were to petition and submit plans which were to include the "service area" and capital improvements. The bill further provided that the money should be distributed by the Emergency Appropriations Commission (the "Little Legislature") on the advice of the Michigan Tuberculosis Sanatorium Commission, the State Department of Health and other interested agencies. Public Act 252.

Areas in Michigan asking for T.B. Hospital appropriations were Jackson County, Saginaw County, Marquette County, Gogebic County, Kent County, Ingham Coun-

(Continued on Page 966)

Postgraduate Continuation Courses

Wayne University College of Medicine

September 10 — December 1, 1951

These courses are open to all qualified persons.

Veterans who are not Residents in a Detroit hospital and who have Certificates of Eligibility under the G.I. Bill should make arrangements for tuition and books, as provided by the G.I. Bill, by presenting these Certificates of Eligibility to Dr. Arthur Johnson, Veterans Administrator at Wayne University, 5524 Cass Avenue.

If you do not possess a Certificate of Eligibility, please call Dr. Johnson at Temple 1-1450, Veterans Affairs, before going to his office, and he will inform you what papers it is necessary to bring with you. *This must be completed before registering.*

Title of Course	Place	Time	Fee
MICROBIOLOGY			
Seminar	College of Medicine	Thursday 4-5	$15.00
Recent Advances in Microbiology	College of Medicine (minimum—5)	Friday 4-5	15.00
Microbial Genetics	College of Medicine	Tuesday 9-10	15.00
PHYSIOLOGICAL CHEMISTRY			
Seminar in P. Chem.	College of Medicine	Thursday 3:30-4:30	15.00
Special Topics	College of Medicine	Friday 4-5	15.00
Biological Catalysts	College of Medicine	Friday 1-2	15.00
PHYSIOLOGY AND PHARMACOLOGY			
Recent Developments in Pharmacology & Physiology	College of Medicine (minimum—15)	Tuesday 4-5	15.00
PATHOLOGY			
Beginning Hematology	College of Medicine	Monday 1-5	50.00
DERMATOLOGY			
Seminar in Dermatology	Receiving Hospital	Wednesday 10-11:30	15.00
Dermopathology Seminar	Receiving Hospital	Wednesday 12-1	15.00
Conf. on Venereal Diseases	Social Hygiene Clinic	Thursday 1-2:30	15.00
INTERNAL MEDICINE			
Medical Conference	Receiving Hospital	Thursday 11-12	15.00
Electrocardiography (three quarters)	College of Medicine	Thursday 4:30-5:30	45.00
Gastroenterology	Receiving Hospital	Saturday 8-9	15.00
Medical X-Ray Conference	Receiving Hospital (limit—10)	Tuesday 11-12	15.00
Allergy Clinic & Conference	Receiving Hospital (minimum—4)	Tuesday 8-11	25.00
Hematology Clinic	Receiving Hospital	Thursday 1-3	15.00
Clinical Hematology	College of Medicine	Wednesday 2-3	15.00
SURGERY			
Surgery Seminar	College of Medicine (limit—20)	Monday 4-5	15.00

Comprehensive Unit Course

OBSTETRICS			
Obstetrics	Herman Kiefer Hospital (limit—10)	Wednesday 2:30-5:00	50.00

Registration for these courses can be made in the the office of Postgraduate Medical Education at the College of Medicine, 1512 St. Antoine, *before September 8.*

Postgraduate Continuation Course

Wayne University College of Medicine

September 10, 1951 — June 7, 1952

Wayne University College of Medicine offers a postgraduate course in the early detection of cancer. Three facilities of the College are to be used throughout the year in the presentation of the course: The Yates Memorial Clinic at 4811 John R, Detroit; the Detroit Receiving Hospital; and the Veterans Administration Hospital, Dearborn. The course is scheduled so that it may be taken for the entire year of three quarters or so that any one quarter may be elected. The course is designed so that doctors of medicine may become acquainted with the means of diagnosis and with the tools of diagnosis which are readily available to them.

EARLY DETECTION OF CANCER

First Quarter: September 10, 1951—December 1, 1951

Monday—Tumor Board Detroit Receiving Hospital	12:30- 2:00 p.m.
Tuesday—Cancer Control Clinic (men) Yates Memorial Clinic	7:00- 9:00 p.m.
Wednesday—Review of Biopsy Slides and Papanicolau Smears Yates Memorial Clinic	10:30-11:30 a.m.
Friday—Consultation Clinic Yates Memorial Clinic	10:00-12:00 a.m.

Second Quarter: December 3, 1951—March 8, 1952

Monday—Cancer Control Clinic (women) Yates Memorial Clinic	3:00- 5:00 p.m.
Wednesday—Review of Biopsy Slides and Papanicolau Smears Yates Memorial Clinic	10:30-11:30 a.m.
Friday—Consultation Clinic Yates Memorial Clinic	10:00-12:00 a.m.
Friday—Tumor Board Veterans Administration Hospital, Dearborn	3:00- 5:00 p.m.

Third Quarter: March 10—June 7, 1952

Wednesday—Review of Biopsies and Papanicolau Smears Yates Memorial Clinic	10:30-11:30 a.m.
Wednesday—Tumor Clinic Detroit Receiving Hospital	12:30- 2:00 p.m.
Thursday—Cancer Clinic (women) Yates Memorial Clinic	3:00- 5:00 p.m.
Friday—Consultation Clinic Yates Memorial Clinic	10:00-12:00 a.m.

Tuition is $50.00 per quarter, and the class is limited to fifteen.

Registration for this course can be made in the office of Postgraduate Medical Education at the College of Medicine, 1512 St. Antoine, Detroit 26. Those wishing to be enrolled for the fall quarter of 1951 must register *before September 8.*

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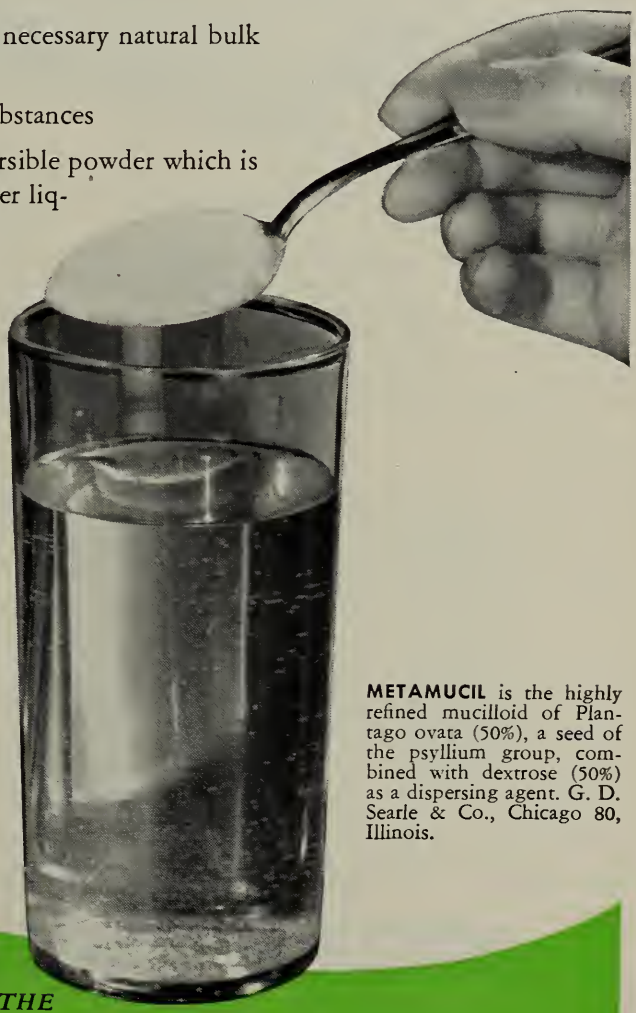
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SEARLE *RESEARCH IN THE SERVICE OF MEDICINE*

Say you saw it in the Journal of the Michigan State Medical Society

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

July 30 marked the seventy-eighth anniversary of the organization of Michigan's State Board of Health, forerunner of the Michigan Department of Health.

The law establishing the board, the fifth in the nation, was enacted by the Legislature and signed by Governor John J. Bagley, July 30, 1873.

History records that at the time of the formation of the State Board of Health, Michigan, with great expanses of "noisome" swamps, was an "ague- and fever-ridden state" and that in damp autumns there was a "fearful amount of malarial fever in the state; in many neighborhoods there were not enough well persons to give a cup of cold water to the sick."

Those were times when most people believed in the spontaneous generation of disease, when isolation of the sick was "barbarous" and sanitary science was in its swaddling clothes. The work of Pasteur in France and Kock in Germany was just under way. Patent medicines heralded as cures for all known human ills were huckstered from street corners and tent shows.

A regimental surgeon, returned from the War of the Rebellion, in a paper presented to the Michigan State Medical Society in June, 1870, urged the creation of a State Board of Health. Massachusetts had established such a board a year earlier. Dr. Henry B. Baker, now known as the Father of Public Health in Michigan, gave the address and prepared the first bill submitted to the Legislature. A committee which included a patent medicine manufacturer never reported the bill out of committee.

For two years a group from the State Medical Society devoted much time and effort to education of the public on the need for a Board of Health. They got one of their leaders, Dr. I. H. Bartholomew, elected to the Legislature, and he submitted the second bill, which was enacted.

While the high incidence of disease, particularly those brought home from the war, was the reason medical men sought a Board of Health, among the factors which actually motivated the legislators to favor a regulatory body were demonstrations of the dangers to public health and safety from uninspected and extremely inflammable kerosene sold for lighting purposes and from the sale of arsenic-tinted wallpaper which caused poisonings.

Labor and Childbirth, a 20-minute 16 mm. sound motion picture film produced by Medical Films, Inc., for use in college marriage classes, prenatal classes and high school family life classes, has been added to the Film Loan Library of the Michigan Department of Health. It is useful as a supplement to other films on reproduction. It is recommended for its "superior approach and good taste." The film should be previewed and opportunity should be provided for discussion.

Guard Your Heart, a 27-minute 16 mm. sound motion picture produced under the sponsorship of the American Heart Association, has been added to the Film Loan Library. It tells the story of Sam Taylor, a hard-driving businessman, who after having a pain in his chest has a nightmare in which his heart accuses him: "You've been pushing me around for fifty-two years." Sam goes to see a doctor who discusses the heart and heart disease, especially for those in the middle years.

Requests for the films should be addressed to the Visual Education Service, Michigan Department of Health.

Benton V. D. Scott, M.D., formerly director of the Houghton-Keewenaw-Barage District Health Department, was appointed Director of the Jackson City Health Department, June 26.

The possibility of a practicable long-term plan for rearranging the local jurisdictions of the State to provide state-wide local health department coverage is being explored by this Department.

Plans for complete coverage suggested in the past including one recently proposed by the United States Public Health Services have in each case left something to be desired.

This Department has now submitted to the local health departments of the State a map showing a proposal for redistricting which is considered to be at least a good starting point for discussions which may evolve an acceptable arrangement.

The proposed redistricting is based primarily on trading center, transportation and population, with an effort being made to retain, where possible, present health districts. The combination of counties, where suggested, is to provide a broader tax base to support the local health services. No proposed district serves fewer than 35,000 people and only four serve fewer than 50,000. All city departments with the exception of the Detroit Department are combined with county departments.

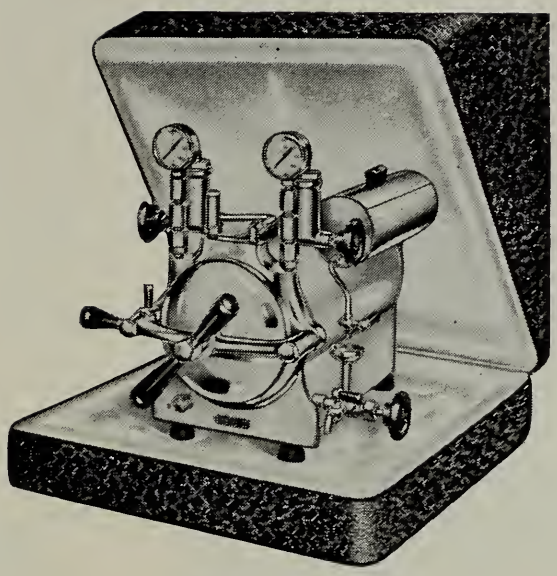
Local health officers are being urged to study a map of the proposed districts in the light of local situations and to submit to the Commissioner's Office, constructive suggestions for improvement. Already other state agencies are manifesting an interest in the proposed redistricting.

An influx of questions regarding the advisability of immunization during the poliomyelitis season resulted in this statement of policy:

The Michigan Department of Health recommends that the established initial immunization procedure calling for the child's immunization to be under way by six months

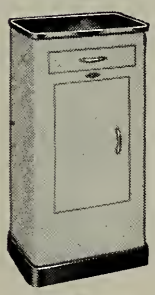
(Continued on Page 948)

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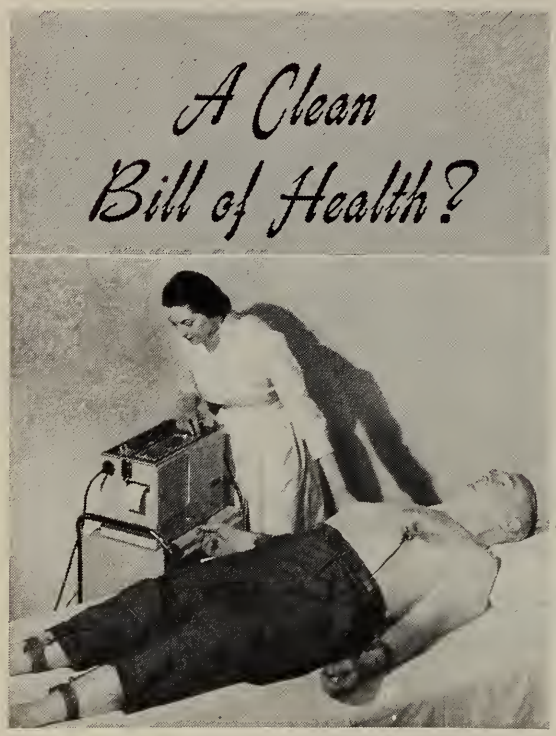
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"Electrocardiograms should become part of the routine physical examination of all patients over 40 years of age."

—Winsor, T.: Electrocardiography for the General Practitioner, GP 3:59-69 (Mar.) 1951.

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(Continued from Page 946)

and completed by his first birthday be continued. Careful studies show that the danger of unprotected children under one year having serious cases of either diphtheria or whooping cough is much greater than the risk of the infant's contracting paralytic polio.

Some evidence is now accumulating which appears to indicate that there is a greater incidence of paralysis among poliomyelitis victims who have had immunization treatment within a month of the onset of the disease. For this reason, when polio is prevalent in a community, physicians may wish to defer immunization of older children and defer booster doses until after the polio incidence has subsided.

More than half of Michigan offers haven to hay fever sufferers. Reprints of Michigan's "hay fever map" based on facts gleaned from the last five annual ragweed pollen surveys are available from the Section of Education, Michigan Department of Health.

Brain tumors in children occur predominantly in the posterior fossa.

* * *

Brain tumors comprise 2 per cent of all tumors.

* * *

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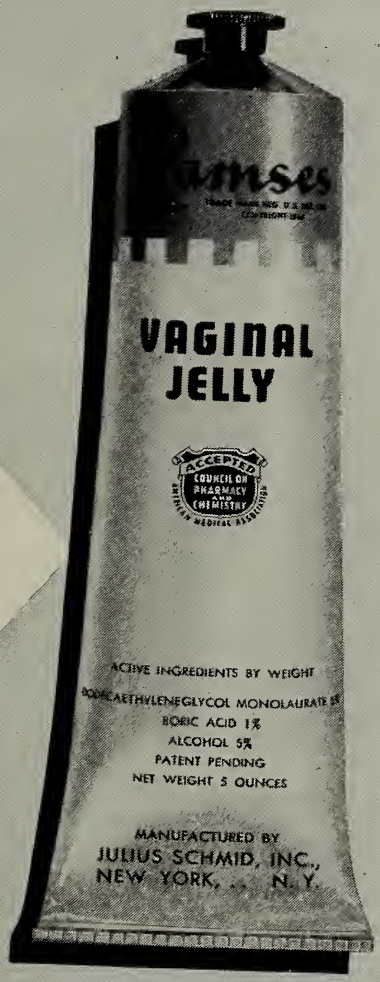
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. . . . . NEWS MEDICAL

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
GRAND RAPIDS—September 26-27-28, 1951

Michigan Authors

John M. Sheldon, M.D.; Robert G. Lovell, M.D., and **Kenneth P. Mathews, M.D.,** of Ann Arbor, Michigan, published an article, "Aerosol Therapy," in *The Journal of the American Medical Association,* June 16, 1951.

Joseph A. Johnston, M.D., of Detroit, Michigan, published an article, "Disturbances of Growth," in *Postgraduate Medicine,* June, 1951.

D. E. Preshaw, M.D.; Alfred Large, M.D., and **Arthur F. Johnson, Ph.D.,** of Detroit, Michigan, published an article, "Effect of Portacaval Venous Shunt on Sulfobromophthalein (Bromsulphalein) Retention," in *Archives of Surgery,* June, 1951.

Clifford D. Benson, M.D., and **John J. Coury, M.D.,** of Detroit, Michigan, published an article, "Congenital Intrinsic Obstruction of the Stomach and Duodenum in the Newborn," in *Archives of Surgery,* June, 1951.

Kenneth P. Mathews, M.D.; John M. Sheldon, M.D.; Robert G. Lovell, M.D., and **Warren E. Forsythe, M.D.,** of Ann Arbor, Michigan, published an article, "Antihistamines and the Common Cold," in *The Journal-Lancet,* June, 1951.

Meyer O. Cantor, M.D., of Detroit, Michigan, published an article, "Mercury Lost in the Gastrointestinal Tract," in *The Journal of the American Medical Association,* June 9, 1951.

James R. Shaw, M.D., and **George A. Shipman, M.D.,** of Detroit, Michigan, published an article, "Preparing the Hospital for Catastrophe," in *The Journal of the American Hospital Association,* June, 1951.

David C. Boyce, M.D., of Grand Rapids, Michigan, published an article, "Hypoplasia of the Optic Nerve," in *The American Journal of Ophthalmology,* June, 1941.

Harold E. Anderson, M.D., of Battle Creek, Michigan, published an article, "Development of Basal Cell Epithelioma as a Consequence of Radiodermatitis," in *Archives of Dermatology and Syphilology,* May, 1951. Co-author with **Nelson Paul Anderson, M.D.,** of Los Angeles, California.

Robert S. Hewitt, M.D., Lincoln Park, published an article, "Torsional Eye Movements," in the *American Journal of Ophthalmology,* February, 1951.

Robert S. Hewitt, M.D., Lincoln Park, published an article, "Innervational Factors Concerning the Vertically Acting Extraocular Muscles," in the *American Journal of Ophthalmology,* April, 1951.

Harold F. Falls, M.D.; Robert C. Bassett, M.D., and **Austin E. Lamberts, M.D.,** Ann Arbor, Michigan, published an article, "Ocular Complications Encountered in Intracranial Arteriography," in *Archives of Ophthalmology,* June, 1951.

Richard C. Schneider, M.D., and **William M. Hegarty, M.D.,** of Ann Arbor, Michigan, published an article, "Extradural Hemorrhage as a Complication of Otological and Rhinological Infections," in *The Annals of Otology, Rhinology and Laryngology,* The First Quarter, 1951.

Sawgemah, by Louis J. Garriepy, M.D., reviewed in these columns recently, has just been read over the Michigan State College Radio Station in East Lansing.

* * *

The annual Coller-Penberthy Medical Conference was held at Traverse City, Thursday and Friday, July 26-27, 1951. An elaborate program was presented by such men as: Fred J. Hodges, M.D., Edgar L. Kahn, M.D., Harold F. Falls, M.D., Harry A. Towsley, M.D., Albert C. Furstenberg, M.D., Grover Penberthy, M.D., Carl E. Badgley, M.D., Arthur C. Curtis, M.D., Herman Riecker, M.D., Richard McKean, M.D., Reed M. Nesbit, M.D., Paul S. Parker, M.D., Robert E. Sloan, Jr., M.D., Frederick A. Coller, M.D., and Alexander G. Ruthven, LL.D.

* * *

Allen O. Whipple, M.D., receives distinguished service award.—Allen O. Whipple, M.D., New York, who has made outstanding contributions in the field of operative surgery, received the annual Distinguished Service Award of the AMA. He came to Atlantic City to accept the award, which carries with it a gold medal and citation. Dr. Whipple won over Maj. Gen. Harry G. Armstrong, surgeon general of the U. S. Air Force, who has written more than 73 scientific papers covering the field of aviation medicine. Two ballots were taken by the House and the vote on the second ballot was: Whipple 98; Armstrong 80.

* * *

Philip S. Hench, M.D., and **Edward C. Kendall, M.D.,** of the Mayo Clinic, pioneers in the development and use of Cortisone, were the joint winners of the 1950 Mutual of Omaha national $10,000 Dr. C. C. Criss award for outstanding contributions in the fields of health and safety. Fourteen leading citizens served as a board of judges, and there were 81 nominees. . . . Dr. Selman A. Waksman, of Rutgers, the discoverer of streptomycin, whose work changed the entire course of treatment of tuberculosis and other diseases, received the American

(Continued on Page 952)

The "estrogen preferred by us is 'Premarin,' a mixture of conjugated estrogens, the principal one of which is estrone sulfate."

Hamblen, E. C.: North Carolina M. J. 7:533 (Oct.) 1946.

In treating the menopausal syndrome with "Premarin," Perloff* reports that "Ninety-five and eight tenths per cent of patients treated with 3.75 mg. or less daily obtained complete relief of symptoms"; also, "General tonic effects were noteworthy and the greatest percentage of patients who expressed clear-cut preferences for any drug designated 'Premarin.'"

Thus, the sense of "well-being" usually imparted represents a "plus" in "Premarin" therapy which not only gratifies the patient but is conducive to a highly satisfactory patient-doctor relationship.

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg. and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

*Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949.

ACCEPTED Council on Pharmacy and Chemistry American Medical Association

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(Continued from Page 950)

College of Chest Physicians' award for meritorious achievement in diseases of the chest. . . . Dr. J. Stanley Kenney, New York, is the new president-elect of the annual Conference of Presidents and Other Officers of State Medical Associations. He will take office next June, succeeding Dr. W. Andrew Bunten of Cheyenne, Wyo. . . . The Board of Chancellors of the American College of Radiology voted a $2,000 contribution to the American Medical Education Foundation.

* * *

Society Urges Doctors to Itemize Patients' Statements.—The Illinois State Medical Society is urging doctors to itemize the statements they send to patients. In the interest of better public relations, the Society tells this story:

"Would you pay your bill at the garage if it came to you this way:

"Repair on 1948 car—$64.32?

"You'd much rather know that $8 went for checking the front end alignment; $1.25 for adjusting brakes; $1.25 for switching the tires, and that parts amounted to $22.75 and the rest was labor.

"Perhaps Mrs. Jones didn't understand the charges for Junior's case of infectious mononucleosis; maybe she doesn't know what laboratory work is. Did you explain to her exactly what was wrong with Junior? Did you tell her why laboratory work had to be done? Does your bill carry the statement that you made a night call on Wednesday, June 20? If it does, maybe she'll remember how glad she was to see you.

"Or did you send Mrs. Jones a statement for 'Services rendered'?

"Think it over. Put yourself in Mrs. Jones' shoes and see if they pinch—just a little."

* * *

Fiske Fund Prize Dissertation.—The trustees of the Caleb Fiske Fund of the Rhode Island Medical Society announce the following subject for the prize dissertation of 1951: "The Present Status of Adreno-cortical Hormone Therapy—Its Uses and Limitations."

For the best dissertation, a prize of $200 is offered. Dissertations must be submitted by December 2, 1951, with a motto thereon, and with it a sealed envelope bearing the same motto inscribed on the outside, with the name and address of the author within. The successful author will agree to read his paper before the Rhode Island Medical Society at its annual meeting in May, 1952. Copy must be typewritten, double spaced, and should not exceed 10,000 words. For further information, write the Rhode Island Medical Society, 106 Francis Street, Providence 3, Rhode Island.

* * *

Inflation.—The devaluation of the dollar and the abolition of the gold standard have contributed to inflation. Dr. Walter E. Spohr, professor of economics of New

(Continued on Page 954)



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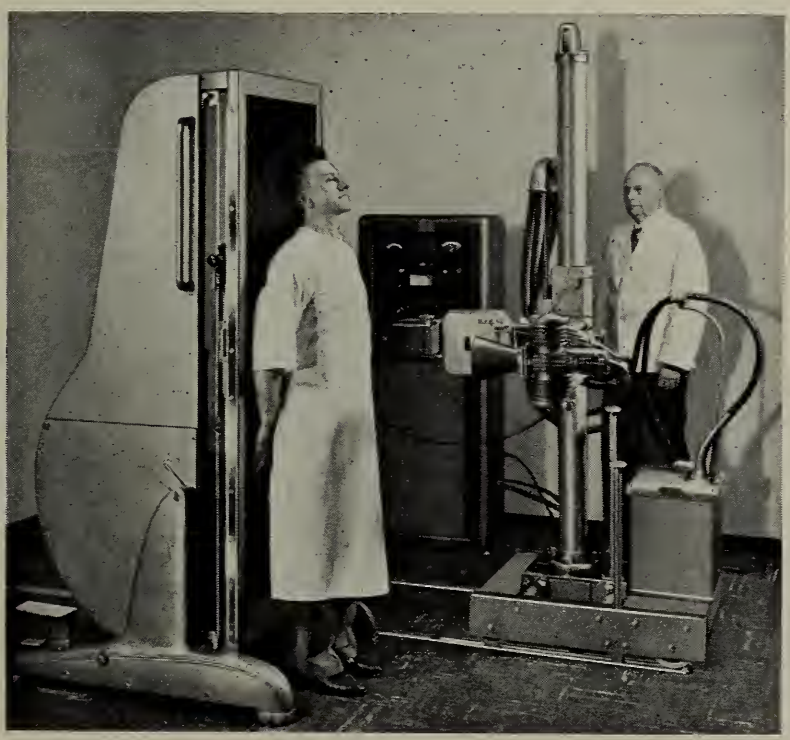
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2. The prepared solution is more convenient than the dried vitamin B injections and permits withdrawal directly from the container into the syringe for immediate administration. This also reduces the likelihood of contamination or waste due to accidental loss in preparing the solution.

3. The absence of unduly large amounts of niacinamide or other foreign solubilizing agents.

4. The presence of a balanced proportion of B vitamins.

Each cc. contains thiamine hydrochloride 25 mg., niacinamide 50 mg., calcium pantothenate 10 mg., pyridoxine hydrochloride 5 mg., riboflavin equivalent (by microbiologic assay) 10 mg

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(Continued from Page 952)

York University, recently summarized the inflationary effects of these policies:

"The total loss, because of a depreciated dollar, on the average value of life insurance policies, time deposits in banks, and E, F and G savings bonds for the years 1941-50, in 1950 dollars as compared with 1941 dollars, amounted to $116,565,524,000. This huge loss, lightly regarded because so poorly understood, stands in sharp contrast to the officially estimated total loss of $1,901,-000,000 by depositors in suspended banks during the years 1921-33. Regarding the latter loss, extending over 13 years, and which is only 1/61st of that over 10 years on the three items mentioned, we still write and speak with emotion for the reason, apparently, that the meaning of that loss was brought home to us in a manner we could understand. But regarding a loss more than 61 times greater, on only three items specified, we offer in general little more than platitudinous observations that reveal our small understanding of the devastating effects of a depreciating currency."

"BLUE CROSS-BLUE SHIELD MONTH"
(September, 1951)

Michigan Hospital Service—Michigan Medical Service will commemorate this Month by inaugurating and carrying on a state-wide non-group (community) enrollment campaign the last two weeks of September throughout the whole State of Michigan.

DOCTOR, HELP THE HEALTH OF MICHIGAN—CO-OPERATE WITH BLUE CROSS-BLUE SHIELD MONTH!

Officers of the United Cerebral Palsy Association of Michigan, Inc., were elected at the annual meeting of June 20 in Detroit. Earl Hudson, Detroit, is president; Carleton Dean, M.D., Lansing, was chosen vice president. Dale Renault, Detroit, was elected secretary and Charles T. Fisher, Jr., Detroit, was chosen treasurer. The program and budget for the ensuing year were discussed and adopted.

* * *

The Toledo Academy of Medicine began work on June 15 on its new library and executive headquarters, to be located on Collingwood and West Central Avenues, Toledo. The building of 12,000 square feet will cost approximately $235,000 and will have an ultimate capacity of 35,000 volumes.

* * *

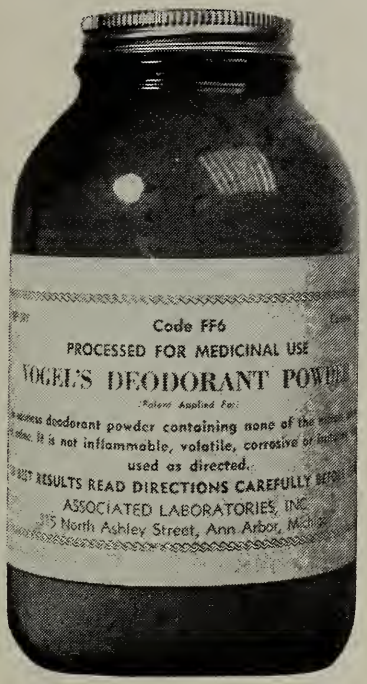
Complimentary Notebooks.—The Bruce Publishing Company, Saint Paul, Minnesota, long-time publisher of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, will again contribute the useful notebooks to be presented to every registrant at the MSMS Annual Session in Grand Rapids, September, 1951.

Many thanks, Bruce Publishing Company.

(Continued on Page 956)

Say you saw it in the Journal of the Michigan State Medical Society

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(Continued from Page 954)

THE ANNUAL SESSION IN BRIEF

- Six Assemblies.
- Fourteen Sectional Meetings.
- Twenty-two Discussion Conferences.
- One General Meeting (open to the public).
- State Society Night (Fun Night for the doctors and their ladies).

* * *

W. B. Mitchell, M.D., Grand Rapids, has been appointed Chairman of the Committee on Scientific Exhibit for the 1951 MSMS Annual Session in Grand Rapids.

* * *

The Fifth Annual Michigan Rural Health Conference will be held January 11-12, 1952, on the University of Michigan campus, Ann Arbor. For program, write E. H. Wiard, Secretary of the Michigan Health Council, 706 N. Washington Ave., Lansing 6, Michigan.

* * *

L. G. Christian, M.D., Lansing, has been reappointed as a member of the Michigan Social Welfare Commission. This is the fourth five-year term in this office for Dr. Christian, who has been Commission Chairman for seven years.

* * *

A. E. Heustis, M.D., Lansing, has been renamed Michigan Health Commissioner by the Governor.



"For every person who dies from tuberculosis, there are six or eight who recover. These figures do not show up in mortality statistics. Therefore, we have no right to use death rates as a yardstick to measure our tuberculosis control. What matters is not that the death rate has dropped another 10 per cent last year or 80 per cent in the last fifty years. What matters is that millions of people are alive today because of an unrelenting crusade against TB which cannot and will not stop even if the death rate from TB falls to zero. Veterinaries are not idle because bovine infections are under control. Physicians will still be busy protecting the living, even though the statisticians can find no tombstones to count."—W. A. Doppler, Ph.D., Executive Secretary, New Jersey Tuberculosis League.

MICHIGAN TUBERCULOSIS ASSOCIATION

All members of the Phi Chi Medical Fraternity are requested to register name and address with Mrs. M. L. Conger, 1110 David Whitney Building, Detroit 26, Michigan.

* * *

"What About this Doctor Shortage?"—the Paul de Kruif article in the June issue of *Reader's Digest*—has

(Continued on Page 958)

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(Continued from Page 956)

become one of the most popular writings in Michigan medical circles. MSMS members requested 27,845 reprints, the average request being for 50 copies, with some doctors ordering 500 for distribution to their patients. Nationally, over 630,000 reprints have been requested.

* * *

R. F. Staudacher, former MSMS Assistant Public Relations Counsel, has been named Executive Secretary of the Student AMA and Director of the American Medical Education Foundation, after two months' employment with the American Medical Association.

Congratulations, Mr. Staudacher!

* * *

C. P. Mehas, M.D., Pontiac, was elected Governor, and W. B. Howes, M.D., Detroit, was elected Regent of District No. 6 of the American College of Chest Physicians at its June 9 annual meeting in Atlantic City.

W. A. Hudson, M.D., Detroit, was chosen as Second Vice President.

* * *

Dr. and Mrs. Wm. E. Barstow celebrated their 50th Wedding Anniversary at their St. Louis, Michigan, home on June 19. Dr. Barstow is immediate Past President of the Michigan State Medical Society.

* * *

Registration at the 1951 Atlantic City Session of AMA reached 28,396 persons, including 12,229 Doctors of Medicine.

The 1952 Annual Session will be in Chicago; the 1953 in New York and the 1954 in San Francisco.

The Clinical (semiannual) Session of 1951 will be in Los Angeles next December; the 1952 Session is scheduled for Denver; the 1953 in St. Louis and the 1954 in Miami.

* * *

W. Andrew Bunten, M.D., of Cheyenne, Wyoming, assumed the presidency of the Conference of Presidents and other Officers of State Medical Association, June 10, in Atlantic City. The President-elect is J. Stanley Kenney, M.D. of New York. A. S. Brunk, M.D., Detroit, is a member of the Board of Directors. The new Secretary is Harvey T. Sethman of Denver.

One of the best speeches ever delivered at the AMA Session in Atlantic City was made at this Conference by Edwin F. Abels, publisher of the Lawrence, Kansas, *Outlook*. His talk was entitled: An Editor Views Medicine." Mr. Abels is past president of the National Editorial Association.

* * *

U. S. Vitamin Corporation, New York, has purchased the Arlington Chemical Company of Yonkers, N. Y.

* * *

A national health survey—the most complete ever attempted—is under way in Canada. Ten thousand families are keeping records of acute and chronic illness in their households, medical care and hospital care expenses, and similar information. At the end of the year, the Dominion will have collected a great mass of data for analysis by the Department of National Health and Welfare. The findings are expected to have great significance in measuring and bettering the nation's health.

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The Michigan Nursing Center Association officers for 1951-52 are:

President—Lucy D. Germain, Detroit; director of nursing education and nursing service, Harper Hospital.

Vice President—Gertrude E. Nathe, Grand Rapids; assistant principal, Mercy Central School of Nursing.

Secretary—Sister Mary Ellen, Detroit; Mercy Hospital Unit, Mercy School of Nursing of Detroit.

Treasurer—Mary B. Anderson, Kalamazoo; director of nursing, Bronson Methodist Hospital.

* * *

The Association of Military Surgeons of the United States will hold its 58th Annual Convention at the Palmer House, Chicago, October 8-10, 1951, under the presidency of Col. Robert C. Cook, MC, A.U.S., Washington, D. C.

* * *

The American College of Surgeons will hold its 37th Clinical Congress at the Civic Auditorium, San Francisco, November 5-9. Henry W. Cave, M.D., New York, is President. For program of the Congress, including color television, write Paul R. Hawley, M.D., Director, 40 E. Erie St., Chicago.

* * *

President Alexander G. Ruthven announced ninety-four faculty promotions at the University of Michigan, effective with the start of the Fall Semester. In the Medical School, the following received the rank of Professor: C. R. Brassfield, H. C. Eckstein, M. M. Frolich, H. M. Pollard. Those promoted to the rank of Associate Professor are: R. S. MacIntyre, O. T. Mallery, Jr., J. V. Neel, R. D. Rabinovitch and H. T. Schmale. The following were promoted to Assistant Professor: W. C. Baum, E. E. Evans, S. S. Fajans, B. D. Graham, G. H. Lowrey, K. P. Mathews, D. J. Merchant, H. K. Schoch, Jr., and Arnold Wollum.

MICHIGAN MEDICAL SERVICE SCHEDULE
(Coincident with MSMS Annual Session)

PANTLIND HOTEL, GRAND RAPIDS
TUESDAY, SEPTEMBER 25, 1951

1:00 p.m. Luncheon, Schubert Room

2:00 p.m. MMS Annual Meeting, Ballroom

All MSMS Delegates are members of Michigan Medical Service corporation, and are expected to attend the MMS Luncheon and Annual Meeting.

The Annual Meeting is open to ALL members of the medical profession, who are cordially invited to attend.

AMA Distributes Illustrated Pamphlet.—A new, attractively illustrated pamphlet entitled "A Doctor for You" has just come off the press and will be made available to state and county medical societies for distribution to the public and the profession.

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The Ingham County Medical Society Bulletin of May, 1951, published an illustrated article, "Short Cut to a Longer Life for the Cardiac Housewife," which publicized the free classes in work simplification and time and energy savings for women with cardiac disorders, offered last spring by the Michigan Heart Association at Michigan State College.

* * *

A. H. Whittaker, M.D., Detroit, was nominated by the faculty of Ohio State University College of Medicine for an alumni achievement award on the occasion of the official dedication of the new Medical Center in May, 1951.

* * *

W. B. Cooksey, M.D., Detroit, has been re-elected as president of the United Health and Welfare Fund by unanimous action of the UHWF Board. Congratulations, President Cooksey!

* * *

President C. E. Umphrey, M.D., Detroit, on May 9, was toastmaster at the Wayne University College of Medicine Clinic Dinner at which 300 medical alumni were present. Dr. Umphrey also addressed the Jackson County Medical Society on May 15 on "State Medical Society Activity."

Dr. Umphrey addressed a joint meeting of the Macomb County Medical Society and Bar Association in Mt. Clemens on May 22. His subject was "Medical Economics in a Changing World."

* * *

The Sixteenth Annual Assembly of the United States Chapter of the International College of Surgeons will be held in Chicago on September 10 through 13, 1951, with headquarters at the Palmer House.

An excellent program has been arranged. Prominent surgeons from the United States and other countries will participate. Scientific sessions will be held by all specialty sections of the United States Chapter.

The annual banquet will take place on Wednesday evening, September 12. Mr. Lawrence Abel, F.R.C.S. (Eng.) of London, will be the principal speaker.

The Assembly will conclude with the convocation. To be held in the civic opera house on the evening of September 13. Senator Estes Kefauver will deliver an address on "The American of Tomorrow."

Hotel reservations may be arranged by writing to the Housing Division, Chicago Convention Bureau, 33 North LaSalle Street, Chicago 2, Illinois.

THIRD MICHIGAN CANCER CONFERENCE

(Continued from Page 854)

supervising the pilot study of cancer in Michigan high schools.

All members of the MSMS are invited to the conference. It is hoped there will be a good representation to impress on the laymen in attendance that the medical profession is as concerned as they are with the problem of cancer control.

Say you saw it in the Journal of the Michigan State Medical Society

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CURRENT THERAPY, 1951 LATEST APPROVED METHODS OF TREATMENT FOR THE PRACTICING PHYSICIAN. Editor, Howard F. Conn, M.D. Consulting Editors: M. Edward Davis; Vincent J. Derbes; Garfield G. Duncan; Hugh J. Jewett; William J. Kerr; Perrin H. Long; H. Houston Merritt; Paul A. O'Leary; Walter L. Palmer; Hobart A. Reimann; Cyrus C. Sturgis; and Robert H. Williams. Philadelphia: W. B. Saunders Co. Price $10.00.

A valuable reference text of therapy for the active practitioner has always been welcome and considered as a prime need. In this edition of the latest methods of combating disease we have a compilation that should be welcomed by all. It is the combined results of 276 contributors, each of whom is qualified in his own field, of the twelve consulting editors and of the editor in chief.

The book is easily readable, the format is good and is such that one can read a section or portion thereof at one sitting and later refer back to it without losing continuity. There are sixteen major sections covering the field of medicine rather completely. The articles assume that a diagnosis has been made, as it should be done before therapy is instituted, and present the latest accepted and verified treatment. Obsolete methods are rarely mentioned and procedures not fully tested are so designated. In some sections the regimen of two or more experts are presented so that any features at variance can be compared, such as coronary occlusion, erythroblastosis fetalis, pancreatitis, allergic dermatitis, and paralysis agitans, to mention only a few. As in previous issues, no preference is indicated among such variant methods.

This text of almost seven hundred pages is admirably done, is the result of a great deal of painstaking work of the collaborators, and as such can be well recommended to all disciples of Aesculapius. The busy doctor will find almost daily need for reference to it to be assured that he is affording the latest therapy to his patients.

G.W.S.

SOMATIC AND PSYCHIATRIC TREATMENT OF ASTHMA. Edited by Harold A. Abramson, M.D., Associate Physician and Chief, Allergy Clinic, The Mount Sinai Hospital, New York; Assistant Professor of Physiology, The College of Physicians and Surgeons, Columbia University. Baltimore: The Williams & Wilkins Co., 1951. Price $11.00.

The treatment of Asthma dates from remote times, but since the recognition of the application of Adrenalin (epinephrine), in the summer of 1906, the treatment has held hope of relief, and as the years pass and research progresses one can almost promise relief in almost every case. There are some problems, some controversial procedures, some tests and treatment not universally accepted. This book by Dr. Abramson is a complete study, giving us the very latest results of trial and error, as well as the most exacting and continued studies. Antihistamine therapy is fully considered. Aerosol gets a complete discussion, also inhalation of

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Surgical Technic, Surgical Anatomy and Clinical Surgery, four weeks, starting September 10, October 8, November 5.
Surgical Anatomy and Clinical Surgery, two weeks, starting September 24, October 22, November 19.
Basic Principles in General Surgery, two weeks, starting September 10.
Surgery of Colon and Rectum, one week, starting September 17, October 15.
Esopbageal Surgery, one week, starting October 15.
Thoracic Surgery, one week, starting October 8.
Gallbladder Surgery, ten hours, starting October 22.
Breast and Thyroid Surgery, one week, starting October 1.
Fractures and Traumatic Surgery, two weeks, starting October 8.

GYNECOLOGY—Intensive Course, two weeks, starting September 24, October 22.
Vaginal Approach to Pelvic Surgery, one week, starting September 17, November 5.

OBSTETRICS—Intensive Course, two weeks, starting September 10, November 5.

MEDICINE — Intensive General Course, two weeks, starting October 1.
Gastroenterology, two weeks, starting October 15.
Electrocardiography and Heart Disease, two weeks, starting October 22.

UROLOGY—Intensive Course, two weeks, starting September 24.

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$50.00 weekly indemnity, accident and sickness	*Quarterly*
$15,000.00 accidental death	**$24.00**
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gasses. The role of the otolaryngologist and the psychiatrist is well described. On the whole it is a very useful and strictly up-to-date book.

PATTERNS OF DISEASE ON A BASIS OF PHYSIOLOGIC PATHOLOGY. By Frank L. Apperly, M.A., M.D., (Oxford), D.Sc. (Melbourne), F.R.C.P. (London), Professor of Pathology, Medical College of Virginia, Richmond, Virginia. 50 Figures and 37 Charts. Philadelphia: J. B. Lippincott Co., 1951. Price $8.00.

This book is very poorly written, although in a somewhat novel fashion. Portions of it suggest a simplified approach to a subject which has been very dim to the physician in the lower half of his medical class so possibly this book fulfills in this way a long-neglected need, since 50 per cent of us are in this particular bracket.

It is worded in a softly philosophical and archaic manner, for example, the use of the word phthisis, rather than tuberculosis. The constant usage of parentheses and the abbreviation for et cetera is condemned. Unfortunately many of the statements presented are somewhat contestable and inaccurate.

A.A.H.

DISEASES OF THE HEART AND CIRCULATION. By Paul Wood, O.B.E., M.D., (Melbourne), F.R.C.P. (London), Director, Institute of Cardiology, London. Physician, National Heart Hospital; Physician in charge of the Cardiac department, Brompton Hospital; Cardiologist, Rheumatic Fever Unit, Canadian Red Cross Memorial Hospital, Taplow; Late Consulting Cardiologist, Postgraduate Medical School of London, Hammersmith Hospital. Philadelphia: J. B. Lippincott Co., 1951. Price $12.50.

As the author states in his preface, this book has been written primarily for graduates interested in clinical cardiology and is not intended for the advanced academic cardiologist or research worker. The needs of students, general practitioners, and specialists in other fields have also been kept in mind. The contents stress the etiological and physiological viewpoints and only that pathological and anatomical material is discussed that finds clinical relevance.

The book is extensively illustrated, and the accompanying cardiograms are mounted in an ingenious fashion to indicate the relative position of the various leads with respect to an Einthoven Triangle. The section dealing with electrocardiography is unusually readable.

An excellent bibliography selected from both English and foreign literature follows each section. Recent papers as well as older classical references are listed.

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The book is small in size and makes for ease of handling. The style is such that it is comparatively easy reading, considering the complexity of the subject.

I would consider this book a most welcome addition to any physician's library who is at all interested in cardiac disease and related subjects.

R.W.B.

CHEST X-RAY DIAGNOSIS. By Max Ritvo, M.D., Assistant Professor of Radiology, Harvard Medical School; Instructor in Radiology, Tufts Medical School. Roentgenologist-in-Chief and Director, Department of Radiology, Boston City Hospital; Associate Radiologist, Beth Israel Hospital, Boston, Mass.; Radiologist, Jewish Memorial Hospital, Jewish Tuberculosis Sanatorium of New England, Revere Memorial Hospital, and Hudson Hospital. 615 Illustrations on 418 Engravings and a Colored Plate. Philadelphia: Lea and Febiger, 1951. Price $15.00

This book is an excellent treatment of the subject of x-ray as it pertains to the diseases of the chest. The material is well organized, coverage is more than adequate, and the reproductions are both numerous and well done. A most helpful feature of the book is the very complete bibliography associated with each section. In short, this is an excellent book.

G.T.P.

BASES OF HUMAN BEHAVIOR. A Biologic Approach to Psychiatry. By Leon J. Saul, M.D., Professor of Clinical Psychiatry, University of Pennsylvania School of Medicine; Psychiatric Consultant, Swarthmore College; Lecturer, Bryn Mawr College. Philadelphia: J. B. Lippincott Co.

This small volume is an attempt on the part of the author to correlate psychodynamics with present-day biological concepts. His main effort seems to be centered on the theme of proving that the psychoanalytical trend of thinking is on a scientific basis. Whether or not he has successfully accomplished that purpose is left to the reader's decision. It is a well-written book. His style appears somewhat argumentative. He gives a clear exposition on the theories of Freud for those interested. His chapter on the neurotic reactions has been placed in the appendix. Except for Selye's adaptation syndrome, this book is mainly a recapitulation of material found in other volumes on psychobiology. G.K.S.

THE NEUROSES: Diagnosis and Management of Functional Disorders and Minor Psychoses. By Walter C. Alvarez, M.D., Professor of Medicine, Emeritus, Mayo Foundation, University of Minnesota, Emeritus Consultant in Medicine, Mayo Clinic. Philadelphia: W. B. Saunders Co., 1951.

It can be correctly stated that this is an excellent book. It was written for internists, surgeons and general practitioners. It is filled with worth-while advice for the neophyte in medicine. It can be a guide book for many of the obscure cases that are encountered. The book is worth the price for the chapter alone on the tactful handling of the nervous patient. Dr. Alvarez does not follow the usual psychiatric nomenclature of the neuroses. Instead he bases his classification on behavior and response. He has avoided the technicalities that would necessarily follow were he writing for or appealing to the psychiatrists. Instead he shows the medical man what cases and how they can best be treated, and suggests in other types those that should be referred to the psychiatrist. He wisely has assumed the middle ground, and for that reason his advice is the most helpful. G.K.S.



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THE NATIONAL FORMULARY. Ninth Edition National Formulary IX. Prepared by the Committee on National Formulary under the Supervision of The Council by Authority of the American Pharmaceutical Association. Official from November 1, 1950. Washington 7, D. C.: American Pharmaceutical Assn., 1950.

The National Formulary is of primary importance and absolute need to practicing pharmacists. It is of interest to physicians incidentally. Formerly they were just as interested, because the older physicians were their own pharmacists.

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The Ninth Edition of the National Formulary represents the culmination of four years of planning and work by the members of the Committee on National Formulary, the staff of the American Pharmaceutical Association Laboratory, and hundreds of collaborators connected with college, governmental, institutional, and industrial laboratories.

This work is a "must," by law in many states.

ANATOMY IN SURGERY. By Philip Thorek, M.D., F.A.C.S., F.I.C.S., Assistant Clinical Professor of Surgery (Formerly Assigned to Gross and Topographic Anatomy), University of Illinois College of Medicine; Diplomate of the American Board of Surgery; Associate Professor of Topographic Anatomy and Clinical Surgery, Cook County Graduate School of Medicine; Member of the American Association of Anatomists; Fellow, American College of Chest Physicians; Co-Surgeon in Chief of the American Hospital; Associate Attending Surgeon of the Cook County Hospital; Senior Attending Surgeon of the Alexian Brothers' Hospital. 720 illustrations, 211 in color, drawn by Carl T. Linden, Instructor in Medical Illustration, University of Illinois, College of Medicine, Chicago. Philadelphia: J. B. Lippincott Co. Price $22.50.

Doctor Thorek has taken advantage of his many years of teaching surgery and anatomy and has prepared a text to suit his particular ideas. This new "Anatomy in Surgery" is exactly named. He starts with the head and describes the various regions, the various anatomical parts, the chief surgery affecting the part, and describes the surgical technique and the anatomical parts involved. This process is continued with trephining operations, encephalography, et cetera. The organs of special sense, their anatomy, and certain operations are described and illustrated. These include simple and radical mastoid surgery and the anatomical relations.

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separately; the perineum, the upper extremities, the lower extremities and the vertebral column.

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PHYSICAL DIAGNOSIS. By Ralph W. Majors, M.D., Professor of Medicine, University of Kansas. New 4th edition. 466 pages with 469 figures. Philadelphia and London: W. B. Saunders Company, 1950. Price, $6.50.

This fourth edition of Major's Physical Diagnosis upholds the high standard of the previous texts. It is one of the best in its field, and makes a ready reference for the clinician as well as the student. Each edition has had much of added features and materials. It is a book older practitioners would do well to review, and they would enjoy the experience.

THE PHYSIOLOGY OF THE NEWBORN INFANT (Second Edition). By Clement A. Smith, M.D., Associate Professor of Pediatrics, Boston Lying-in Hospital, Harvard Medical School. Springfield, Illinois: Charles C Thomas, 1951. Price, $7.50.

In bringing out a second edition of this book, Doctor Smith, in addition to a thorough revision of all thirteen chapters, has largely rewritten the sections on respiration, nutrition, and kidney function.

The very valuable clinical summaries at the end of each chapter have been expanded. These short discussions which tie theoretical to clinical considerations are not, by any means, the least of the important features of this volume.

Any pediatrician would be well advised to read especially the chapters on Immunology, and Renal Physiology which present their lessons with unusual clarity.

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ANOTHER CRUEL HOAX

(Continued from Page 862)

who need it most—the chronic sufferers, or the indigent who need much more than 60 days in the hospital.

Actually, Ewing is not concerned with them. His whole purpose is to mislead the public into believing that a benevolent Government is looking out for them, without cost to themselves. If he can get enough people to think that way, he may succeed in foisting his pet idea of nationalized medicine on the public—with himself as the chief political beneficiary thereof.—Editorial, *Detroit Free Press,* June 27, 1951.



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ANNUAL REPORT OF LEGISLATIVE COMMITTEE, 1950-1951

(Continued from Page 942)

ty, Van Buren County, Benton Harbor or St. Joseph and the Pinecrest T.B. Sanatorium in Powers, Michigan.

Interim Committees

Thirty-four interim committees were established by the Legislature to study legislation likely to be presented in 1952. Eight of the committees will investigate problems of interest to medical men. These committees will study the following subjects:

1. Flour enrichment.
2. Mental health system in Michigan.
3. Adequacy of the Crippled and Afflicted Children Acts.
4. Reorganization of state government and continuing the "Little Hoover Commission."
5. Legislative proposals re sex deviation, continuing the work of the Study Commission on the Deviated Criminal Sex Offender.
6. Advisability of a state disability insurance law.
7. Problems of the dairy industry and consumer.
8. Narcotic problem in Michigan.

Thanks

As can be seen from the above accounting, the MSMS was interested in a wide variety of legislation—insurance, social security, government administration, public health, hospitals—all of which is directly related to the health of the people.

The Legislative Committee wishes to extend its appreciation and thanks to the members of the Michigan Legislature who gave very thoughtful consideration to measures concerning the medical profession. The Committee also wishes to thank them for the courteous reception they gave MSMS representatives. We recommend that each individual Doctor of Medicine express appreciation to his own Senator or Representative(s).

To members of the medical profession, the Committee acknowledges the splendid co-operation given by Doctors of Medicine throughout the state in their unselfish efforts to keep their friends in the Legislature informed on medical legislation. We are truly grateful for this "back home" support. We strongly urge its continuance as new problems rise. This is particularly true now in view of the decisions of the Legislature to meet annually.

Respectfully submitted,
L. A. Drolett, M.D., *Chairman*
O. O. Beck, M.D.
C. L. Candler, M.D.
L. E. Holly, M.D.
R. J. Hubbell, M.D.
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EIGHT ITEMS FROM MSMS TO AMA

Report on actions taken by AMA House of Delegates, June, 1951 Session, on eight matters of special interest to MSMS:

1. *Hospital Standardization* (American College of Surgeons).—The Board of Trustees recommendations were approved that a joint commission be created to be in charge of hospital standardization and accreditation: eight representatives of the American Medical Association; four representatives of the American Hospital Association; three representatives of the American College of Surgeons; and three representatives of the American College of Physicians. The reference committee report read: "By such an arrangement, we can assure . . . that the best interests of all divisions of the medical profession will be amply protected."

General practitioner representation on the Commission, as well as the creation of an advisory committee consisting of representatives from all scientific sections of the AMA, were assured.

Another provision in the House of Delegates decision was "At all times the Board of Trustees or the representatives of the AMA be instructed, in any agreement they make to be bound and to follow the principles as elucidated by the House of Delegates." This however does not bind the Board of Trustees to demand an 8-4-3-3 ratio so perhaps the original proposal of six from the American Medical Association and six from the American Hospital Association with three from each of the other organizations may be adopted. The plan will be on the agenda of the American Hospital Association House of Delegates, meeting in St. Louis next September.

2. *Delinquent 1950 AMA Dues.*—A resolution from Texas "That the House of Delegates request the AMA Board of Trustees to re-evaluate the position of the AMA regarding delinquent 1950 dues" was approved and the report was duly adopted.

3. *Resolution re Blue Shield,* congratulating sponsoring medical societies (introduced by R. L. Novy, M.D., Michigan). "The reference committee recommended approval of this recommendation with amendments to provide that approval, commendation and congratulations be extended not only to the medical societies sponsoring Blue Shield Medical Care Plans but to those medical societies that sponsor other plans for the provision of the cost of medical care for major and serious illnesses."

The House of Delegates approved the reference committee report.

4. *Membership Classification and Dues.* The Constitution and By-Laws of the AMA were amended at the Atlantic City meeting to read as follows:

"Division One, Chapter II, Section 2: Annual dues may be prescribed for the ensuing calendar year in an amount recommended by the Board of Trustees and approved by the House of Delegates. Each active member shall pay said annual dues to the constituent association (state society) for transmittal to the Secretary of the American Medical Association. Dues would include subscription to the *Journal of the AMA.*"

The Board of Trustees established the following exemptions from the payment of AMA membership dues:

"1. Members who have retired from the practice of medicine, provided they are also excused from the payment of dues, in full or in part, by their component societies and constituent associations.

"2. Members over 70 years of age, regardless of whether or not they are in practice and regardless of local dues exemption.

"3. Members for whom the payment of dues constitutes a financial hardship and who are also excused from the payment, in full or in part, of component and constituent society dues for the same reason.. In each case, notification of exemption for financial hardship should be made to the American Medical Association by the secretary of the county and state medical society.

"4. Interns and residents not more than five years after graduation from medical school, except that time spent in military service may be excluded in calculating the five-year limit.

"5. Members who enter military service prior to July 1 of any year are exempted from one-half of the year's dues and subsequently during service from full dues."

The Illinois delegation presented a resolution recommending that the Constitution and By-Laws Committee of the AMA arrange for classes of membership for both retired and emeritus members with relief from payment of dues in the AMA.

(Continued on Page 978)





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EIGHT ITEMS FROM MSMS TO AMA

(Continued from Page 976)

This resolution was approved in principle by the reference committee and was referred to the Interim Committee on Constitution and By-Laws for implementation.

It would appear that the detailed action of the House of Delegates on dues made the Illinois resolution superfluous.

Abandonment of AMA Fellowship.—Three resolutions on establishment of single membership classification were presented by Ohio, Massachusetts and Minnesota. The Reference Committee approved the principle involved in these resolutions especially as to eligibility of members to take part in organizational and scientific programs of the AMA without the necessity of other than regular membership. The Committee recommended that this matter be referred to the standing committee of the House of Delegates on Constitution and By-Laws with instruction to prepare such changes in the Constitution and By-Laws, in consultation with the Board of Trustees, as may be necessary to carry out these recommendations, and with instructions to present the necessary changes to the House of Delegates at its December 1951 session.

5. *Pension Plans or Retirement Benefits for Professional Persons.*—W. H. Huron, M.D., of Michigan, presented a resolution (with one coming from New York and one from Wisconsin) on this subject.

The reference committee stated:

"The objective sought is to establish a procedure whereby physicians and members of other professional groups may during their most productive years provide for their old age and less productive years by the purchase of retirement benefits with tax deferred income, the benefits being taxable when received. Such a procedure is presently available for the benefit of employes and officers of corporations but not to taxpayers who are self-employed.

"The reference committee recommends that the House re-emphasize its 1948 endorsement of the principle embodied in this proposal, with a reasonable ceiling on the amount of the retirement benefit, and that the Board of Trustees be requested to continue its efforts in support of this principle, giving special consideration to any legislation formulated by the American Bar Association."

The tax Bill (H.R. 4473), and particularly the Ives amendment which would accomplish the desires expressed in the three resolutions, is now under consideration by the U. S. Senate Finance Committee. Proper communications have been forwarded to Senator George, Chairman of the Senate Finance Committee and Senator Ives who proposed the amendment to aid professional and other self-employed taxpayers.

6. *Insurance Reporting Forms.*—This resolution, introduced by Dr. Novy of Michigan, requested the AMA to consider this problem and in collaboration with insurance companies of America to develop mutually satisfactory reporting forms of a more efficient and shortened variety.

The reference committee requested the Council on Medical Service to send to constituent medical associations certain simplified forms which have been approved by the Council, and with this comment, approved the Novy resolution.

A Minnesota resolution read:

"That the problem of eliminating diversity of insurance reporting forms be referred to the proper committee of the AMA, with instructions to create a standardized form for reporting health and accident cases."

The reference committee report read:

"In view of the various state laws, it would be difficult and physically impossible to have a standardized form that would comply with the laws of the forty-eight states. Your reference committee recommends that this matter be handled on an individual state level. Therefore the reference committee disapproves this resolution."

7. *Stamps of Approval for Iodized Salt Packages.*—The W. A. Hyland, M.D., resolution, introduced at the request of the MSMS Iodized Salt Committee, resulted in the following reference committee report:

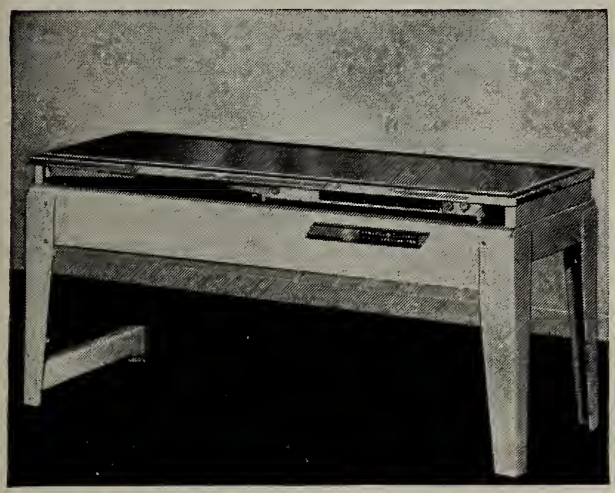
"Your committee is fully aware of the merits of iodized salt for use in certain conditions. It is also cognizant of certain objections to its general use in all sections of the country. Your committee therefore recommends that no action on this matter be taken by the House at this time and that this resolution be referred to the Council on Foods and Nutrition for study and that recommendations by the Council be submitted at the next session of the House of Delegates."

REPORTING OF CONTACTS BY PHYSICIANS AND LABORATORIES

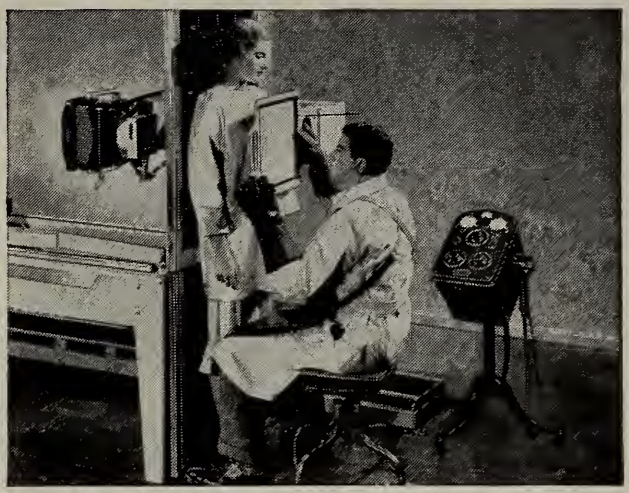
At its mid-summer meeting of July 1-2-3, the MSMS Council adopted a motion urging that all physicians and laboratories carry out the full import of need for reporting all infectious diseases insofar as the existing laws are concerned.

(Continued on Page 980)

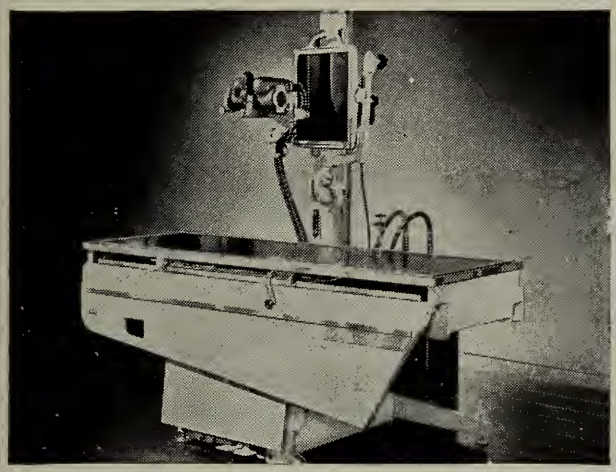
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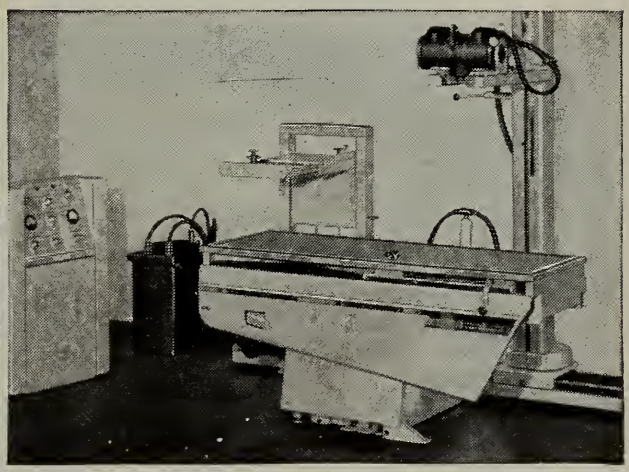
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(Continued from Page 978)

WHAT IS A CLINIC?

As far as the meaning of the word *clinic* is concerned: originally, as pointed out in a report submitted to our House of Delegates by the Judicial Council in 1927, it meant, in its verbal form, "to lie down" or "to recline." The term "clinique" was introduced in France to designate an institution or school where students were taught by the examination and the treatment of patients in their presence. The term "clinique" was Anglicized into clinic and was adopted by a few physicians and by a greater number of groups of physicians to designate their offices or workshops.

One of the meanings given to the word "clinic" in the American Illustrated Medical Dictionary, by Dorland, is "An establishment where patients are admitted for special study and treatment by a group of physicians practicing medicine together." That is the generally accepted connotation of the word among physicians.

A number of years ago the following statement was formulated by the then Secretary of the Council on Medical Education and Hospitals of the American Medical Association in relation to the modern use of the word "clinic":

"1. That two or more physicians are associated in practice.

"2. That among these physicians there is a functional differentiation; that is to say, specialization. For example, one member devotes himself largely to surgery, another to internal medicine and so on according to the size of the group.

"3. Laboratory facilities are available for diagnosis in whatever fields are covered by the group.

"4. There is no necessary implication that beds are provided in connection with the clinic.

"5. Neither is there implied an offer to give instruction to physicians or medical students.

"6. There is implicit in this use of the word clinic an understanding that from an economic point of view the group is a partnership and that, therefore, the income of the group is pooled and divided in accordance with some formula which is acceptable to its members.

"7. The use of the word clinic in this sense also implies a sharing of professional responsibility which is to say the patients treated in the clinic have no single physician to whom they may look for a personal management of their case."

You might also be interested in knowing that a brief statement of definitions relating to medical care plans which was approved by the House of Delegates on December 1, 1948, stated that the term private group clinics applies to organization owned and managed by one or more physicians offering medical services. This service is usually supplied by a number of physicians who practice as a group, using joint office facilities and equipment. The physicians are under the supervision of a medical director.—A.M.A. Bureau of Legal Medicine and Legislation, 1951.

1952 MICHIGAN CLINICAL INSTITUTE

This outstanding concentrated continuation course will be held on March 12-13-14 in Detroit. Write for hotel reservations to Secy. Chas. F. Loftis, Committee on Hotels, c/o Book-Cadillac Hotel, Detroit. Preliminary program available in December.

THIS IS BLUE CROSS-BLUE SHIELD MONTH

September, 1951, has been declared "Blue Cross-Blue Shield Month."

Michigan Hospital Service and Michigan Medical Service are now carrying on a statewide non-group (community) enrollment campaign. Newspapers, radio, and TV are being used in this Michigan campaign. The co-operation of the Michigan Hospital Association and the Michigan State Medical Society is spelling success to this unusual program of co-operation with the people.

Individual doctors are urged to remind their patients to "Register Now" and to distribute folders and application cards and to ask each patient "Are you a Blue Cross-Blue Shield member?" The Woman's Auxiliary to the Michigan State Medical Society is co-operating in this campaign.

Blue Cross-Blue Shield Month must be and is a success because it offers the people that which is good for the people and something which they want—and *need.*

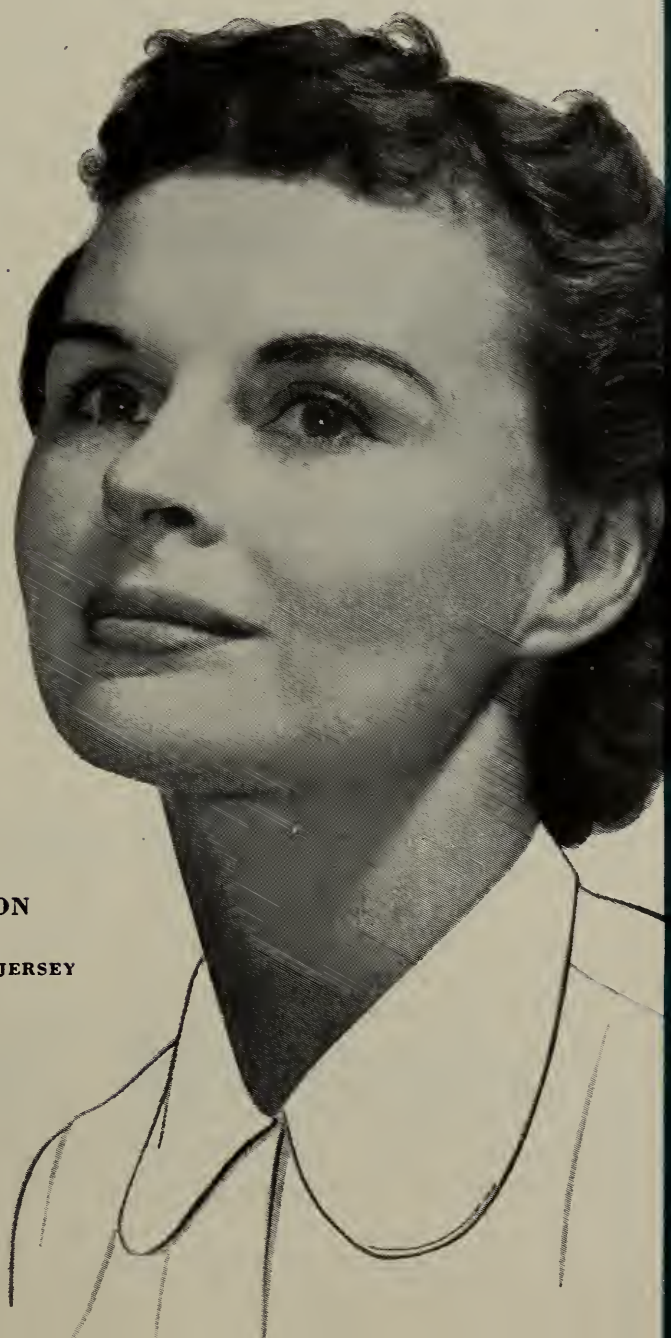
Blue Cross-Blue Shield Month demonstrates that the American way is the voluntary way.

(Continued on Page 982)



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Small dosage makes ESTINYL inimitable among orally effective estrogens. As little as *two hundredths of a milligram daily* relieves menopausal symptoms and produces a sense of well-being obtainable only with larger doses of other estrogens.



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Available for treatment of menopause and other estrogen deficiency states, in tablets of 0.02, 0.05 and 0.5 mg.

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ESTINYL

(Continued from Page 980)

REVISIONS IN MCCC FEES

The Michigan Crippled Children Commission has acknowledged recommendations made by the MSMS Council by revising two procedures governing payment of physicians and surgeons fees. As of July 1, 1951: (a) "The fee allowed for a surgical procedure shall include ten days' aftercare"—not "thirty days' aftercare," as in the past; (b) "In cases of operations performed concurrently or within fifteen days of the original operation, the fees for the multiple procedures will be the greater or greatest fee plus 50 per cent of the scheduled fee for the other procedures"—not "20 per cent," as in the past.

NOTE: The county contractual clause in the Afflicted-Crippled Children Acts limits the MCCC to payment of the county fee where it is *less* than the MCCC fee schedule. If this is the case in your jurisdiction, begin efforts at once to negotiate necessary revisions in country schedules of benefits covering governmental wards so that individual members of your Society are not penalized by being forced to perform services at a financial loss and below the fees indicated in the Uniform Fee Schedule for Governmental Agencies (which in some items is slightly higher than the MCCC fee schedule).

THE THIRD MICHIGAN CANCER CONFERENCE

The Conference will be held at the W. K. Kellogg Center for Continuing Education, Michigan State College, East Lansing, on Friday, October 12, next. Registration from 9 to 10, program from 10 to 12:30. Luncheon at 1, followed by questions and general discussion until adjournment at 3 p.m.

Dr. Heustis, State Health Commissioner, will give a short welcoming address. The other speakers and their subjects are: Madge Thurlow Macklin, M.D., Ohio State University, Columbus, "The Place of Heredity in Cancer Development"; Mrs. Marjorie Karker, Director, Women's Activities, Michigan Farm Bureau, Lansing, "Relation of Rural Organizations to the Cancer Problem"; "Home Care of Cancer Patients" will be discussed from the nursing angle by Miss Hulda Edman, R.N., Visiting Nurse Association, Detroit, and from the psychiatric viewpoint by Harrison Sadler, M.D., Psychiatric Department, Wayne University, Detroit. F. L. Rector, M.D., will discuss "Cancer Education in Schools."

It is hoped members will plan to attend this conference. Advance registrations indicate a large attendance from various organizations throughout the state, so mark your calendar for a "day off" on October 12.

ORCHIDS TO BENNETT

On August 1, 1951, the House of Representatives of the United States Congress took action on House Bill 3298. This bill as originally written was designed to improve upon the methods of dispensing drugs so that the public could have maximum access to pharmaceuticals with maximum protection against dangers involved in their use. However, the bill also contained certain provisions which would give Federal Security Administrator, Oscar Ewing, great power over the entire drug industry and indirectly over the medical profession.

These obnoxious and undesirable provisions in the bill were eliminated by the amendment placed on the bill by Representatives John B. Bennett of Michigan and Joseph P. O'Hara of Minnesota.

Following is an extract from a letter received in the Executive Offices from F. E. Wilson, M.D., Associate Director of the Washington Office, American Medical Association:

> "It is with a great deal of pleasure that we inform you and your society of the accomplishments of Representative John Bennett on H.R. 3298. This bill was passed by the House of Representatives on August 1 after being amended by Mr. O'Hara. The amendment struck out the objectionable features to which the American Medical Association was opposed.
>
> "Mr. Bennett and Mr. O'Hara started the floor discussion with the audience against them, but by masterful skill and ability, they rapidly gained support." (Final vote on the amendment was 141 to 85.)

The entire Republican contingent from Michigan in the House of Representatives voted for the amendment. The bill is now being considered by the Senate where there is a reasonable prospect of the amendment being retained if the bill is passed.

PROFESSIONAL INCOMES (MEDICAL)

An analysis of the long-awaited, much-discussed physicians' income survey has been made public by the U. S. Department of Commerce in Washington.

It showed that physicians in civilian practice in the

(Continued on Page 984)

BELIEVE IN YOURSELF!

Doctor, you probably have read a great deal of cigarette advertising with all sorts of claims.

So we suggest: make this simple test...

Take a PHILIP MORRIS—and *any* other cigarette. Then,

1. Light up either one. Take a puff—don't inhale—and s-l-o-w-l-y let the smoke come through your nose.

2. Now do exactly the same thing with the other cigarette.



Then, Doctor, ***BELIEVE IN YOURSELF!***

PHILIP MORRIS

Philip Morris & Co. Ltd., Inc.
100 Park Avenue, New York 17, N. Y.

PROFESSIONAL INCOMES (MEDICAL)

(Continued from Page 982)

U. S.—including salaried as well as independent practitioners, but excluding interns, residents and teachers—reported an average net income of $11,058, before taxes, in 1949.

Neurological surgeons led the field for highest earnings with an average net income of $28,628. They were followed by pathologists with $22,284, and gynecologists with $19,283. Physicians in private practice averaged $11,858; salaried physicians, $8,272.

Among independent physicians, about 13 per cent made less than $3,000 net income in 1949, whereas only about 9 per cent of the salaried physicians made so little. On the other hand, about 8 per cent of the independents reported more than $25,000, but only 1 per cent of the salaried made as much.

Physicians who were members of partnerships reported an average net income of $17,722 in 1949 as against $10,895 for those not practicing as members of partnerships.

A detailed analysis of the survey, which was a joint undertaking by the Department of Commerce and the American Medical Association, appears on pages 1249-55 of the July 28 issue of the *AMA Journal.*

Work on the survey was done by Frank G. Dickinson, Ph.D., director, and Charles E. Bradley, Ph.D., associate in economics, of the Bureau of Medical Economic Research of the AMA, and William Weinfeld, business economist of the Office of Business Economics of the U. S. Department of Commerce.

Dr. Dickinson said that probably the most significant information of the survey is that in the 20-year period since 1929, the average net income of all civilian physicians more than doubled, but this relative increase was practically identical with that for all earners in the general population over the same period.

The increases in the earnings of physicians during the past 12 or 20 years have been due to three factors: a moderate increase in fee schedules, better collections, and greater "output per physician."

Questionnaires were sent to 125,000 physicians and 55,000 replied. The government's report is based on an analysis of 30,000 replies, which were unsigned and unidentified.

"It is our opinion that the national averages for the broad groups of physicians are generally reliable," Dr. Dickinson said, adding: "We have some doubts about the averages for specialties, for specific cities and for states since the number of replies in each group provide, in some cases, a rather thin sample. Our subsequent analysis of the questionnaires may increase our confidence in these breakdowns."

Among independent physicians, full specialists reported an average net income of $15,014 for 1949. This was 70 per cent more than the average income of $8,835 reported by general practitioners. Part specialists were in between with $11,758, according to the Department of Commerce report.

TAX EXEMPTION FOR RETIREMENT INSURANCE PREMIUMS

Senator Ives (R.-N. Y.), on the floor of the Senate July 25, explained *an amendment he introduced to the House-passed tax bill* (H.R. 4473). The amendment would, under certain circumstances, exempt from taxation limited premium payments for retirement plans of members of professional and other specified associations —provided such plans have prior approval of the United States Treasury Department. Senator Ives explained such an exemption would correct an unfair situation. He pointed out that it was designed to bring relief to highly educated persons who are not covered by Social Security and who have, after prolonged schooling and training, fewer earning years than the average person now covered by Social Security. He said that lawyers and physicians, for example, do not reach peak earnings until late in life. Physicians, he explained, reach their peak from ten to nineteen years after commencing practice. Increased rates of taxation take dollars from professional persons at a time when they should be setting funds aside for retirement years.

The Ives proposal permits eligible persons to pay each year—tax free—to an approved organization's retirement plan 10 per cent of earned income, or $7,500, whichever is less. Professional, business, and other associations would submit their retirement plans to the United States Treasury Department for approval. To be approved, such plans must provide that premiums could not be withdrawn voluntarily before retirement age (60). The insured, however, could draw benefits before age 60 for total and permanent disability. Upon retirement, the insured or his beneficiaries, could elect to take a lump sum payment or accept annual installments. Under the lump sum payment arrangement, the total amounts would be subject to a capital gains tax not exceeding 25 per cent (present rate). Under yearly installments the insured or his beneficiaries would be subject to regular income tax payments.

Several other bills with similar objectives have been introduced in the House of Representatives previous to this time. None of them has been scheduled for consideration by House Committee on Ways and Means nor has there been any indication that they would receive attention this year. However, since Senator Ives has offered the idea as a Senate floor amendment to the tax bill, the question is thrust into immediate consideration and debate. In the event the Senate should accept the Ives amendment it would be considered by conferees from both Chambers along with the revenue bill.

Legislation which would exempt contributions to approved pension systems by self-employed persons and partnerships and thus provide tax incentives for private pension plans has been introduced in Congress by Representatives Reed (R., N.Y.) and Keogh (D., N. Y.). According to the sponsors, self-employed persons, including doctors and lawyers, are finding it increasingly difficult to finance adequate retirement protection but might be able to do so through programs sponsored by

(Continued on Page 1025)



ulmonary embolism

"No case of post-operative death from pulmonary embolism" occurred in a study of heparinization[1] during a 9-year period in a hospital with 30,650 admissions. With early diagnosis, early ambulation and heparin treatment of thrombo-embolism, mortality was reduced from 18 per cent in a control series to 0.4 per cent.[1] Such advances in the control of thrombo-embolic phenomena have been made possible by the pioneering efforts of investigators in many centers of medical research.

Upjohn research has contributed new and advanced preparations. A single, deep, subcutaneous injection of Depo*-Heparin (30,000 to 40,000 U.S.P. units—approximately 300 to 400 mg.) "will give a lengthened coagulation time of 2 to 4 times normal for about 24 hours."[2]

For practicable and prolonged thrombo-embolic control:

℞ Depo-Heparin

Each cc. contains:	Heparin Sodium	20,000 U.S.P. units *(Approximately 200 mg.)*
	Gelfilm	180 mg.
	Dextrose, Anhydrous	80 mg.
	Water for Injection	q.s.

Preserved with sodium ethyl mercuri thiosalicylate 1:10,000

Supplied with sterile disposable 1 cc cartridge syringe.

1. Blum, Clarence: New Yorker's Experience with Heparin in Acute Venous Thrombosis. Angiology, Vol. 1, No. 3, May 1950.

2. Smith, Hilmer J.: Low-Dose Heparin Prevention of Postoperative Thrombosis: A Useful Adjunct in Anticoagulant Therapy. U. S. Armed Forces Med. J., Vol. II, No. 1 (Jan.) 1951.

Upjohn Research *for Medicine . . . Produced with care . . . Designed for health*

Trademark, Reg. U. S. Pat. Off.

Cancer Comment

EMPLOYMENT STATUS OF THE INDUSTRIAL WORKER WITH CANCER

Industrial physicians and employers should keep in mind some obvious procedures if their employes who have cancer or who have recently undergone treatment for cancer are to return to their jobs.

Often special consideration must be given to workers with cancer in order to be fair alike to worker and employer and to respect the basic purpose of Union-Management contracts which is to protect the right of the employe to continue at his job as long as it exists, and as long as he is able to give reasonable service.

It is expected that at some time the worker will become ill. If this occurs, he is granted sick leave with the expectation on the part of all parties that he will return to his work. It is recognized that his physical capacity may be altered by an illness, rendering him incapable of doing the job which he previously held. This is the concern of the plant physician who evaluates the convalescent employe and recommends proper job placement. This evaluation takes into consideration a number of factors, including not only the employe's condition at the time he returns to work but also a consideration of the employe's probable condition in the months to come.

If the illness from which the worker has suffered is a chronic one, as cancer with its uncertain prognosis, the industrial physician must take into account the possible complications. In this regard, he wants to protect the company from liability for complications of a disease or treatment which is being interpreted by the worker as directly due to his work, for example; the possible claim by an elderly material handler that his back pain is due to his work rather than metastasis from prostatic carcinoma. He also wants to see the employe restored to his maximum earning capacity in work that produces the least strain on his physical condition.

The treated cancer patient who presents himself for return to work poses more problems than most. Most difficult to handle is the individual who is unaware of his correct diagnosis and its implications. In this instance, the "return-to-work" note from the family physician is noncommittal, stating only that Joe Worker has been ill and is now ready to return to work. After a little questioning, the truth of the situation is readily evident to the plant physician. This is productive of an embarrassing situation in which the employe may reject the plant physician's recommendation as to a job transfer especially if it means a reduction in his wage rate. This situation should result in a frank discussion between union officials and the plant physician as to the correct diagnosis of the employe's condition and of the possibility of complications. Under these conditions, it is imperative that the patient have knowledge of his affliction and the safe plan for its treatment.

The reluctance of many employers to reinstate a treated cancer patient can be overcome by an understanding and ethical relationship between the family physician and the plant physician. From every viewpoint it is advisable that the treated cancer patient should return to work. This is as much a therapeutic procedure as it is a personal economic safeguard. This can be facilitated by a letter from the family doctor to the plant physician informing him of the diagnosis, the treatment, and the future plan for care of the patient. The industrial physician should be advised of the results of the continued follow-up of the patient by his own physician. With this information, the industrial physician can assure the employer that recurrence or spread of the malignancy will be discovered early enough so that claims for aggravation of the disease due to occupation are not likely to occur.

Specific recommendations from the family physician as to the type of work that the patient is believed capable of doing are certainly welcomed by the plant physician. The term "light work" means nothing. For example, a factory worker who has had a combined abdominal peritoneal resection for carcinoma of the rectum might be sent to his plant physician with a letter containing the advice that, "This man is now no longer capable of doing his former strenuous job of wet sanding automobile bodies because of the presence of an abdominal colostomy and the weakening of his abdominal wall. I suggest that he be given a job on the day shift at some type of bench assembly in reasonable

(Continued on Page 1014)

Terramycin is also indicated in a wide range of

Terramycin

Gram-positive Bacterial Infections

Lobar pneumonia • Mixed bacterial pneumonias
Bacteremia and septicemia
Acute follicular tonsillitis
Septic sore throat • Pharyngitis
Acute and chronic otitis media
Acute bronchitis • Laryngotracheitis
Tracheobronchitis • Sinusitis
Chronic bronchiectasis
Pulmonary infections associated with pancreatic insufficiency
Scarlet fever • Urinary tract infections
Acute and subacute purulent conjunctivitis
Acute catarrhal conjunctivitis
Chronic blepharoconjunctivitis not involving the meibomian gland
Abscesses • Cellulitis
Furunculosis • Impetigo
Infections secondary to Acne vulgaris
Erysipelas • Peritonitis

Gram-negative Bacterial Infections

Gonorrhea • Brucellosis
Bacteremia and septicemia
Friedländer's pneumonia
Mixed bacterial pneumonias
Pertussis • Diffuse bronchopneumonia
Post-partum endometritis • Granuloma inguinale
Dysentery • Urinary tract infections
Respiratory tract infections
Cellulitis • Peritonitis • Tularemia

Spirochetal Infections

Syphilis • Yaws • Vincent's infection

Rickettsial Infections

Epidemic typhus • Murine typhus
Scrub typhus • Rickettsialpox
Q fever • Rocky Mountain spotted fever

Viral Infections

Primary atypical pneumonia (virus pneumonia)
Lymphogranuloma venereum • Trachoma

Protozoal Infections

Amebiasis

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"It's Your Life"

A Michigan State Medical Society Television Show

Presented each Sunday at 12:00 Noon
WJBK-TV (Channel 2) Detroit

"It's Your Life" began as a program sponsored by the Medical Arts Pharmacy of Detroit. The sponsorship was withdrawn during the summer months, but through the courtesy of WJBK-TV, the show was continued on a sustaining basis.

Ruse and Urban Advertising Agency continues handling the program of the show under the able direction of Flo Urban, agency head.

This program has been well accepted by the television public, thanks to the many M.D.s who sacrifice a Sunday morning or more of their leisure time to appear under the hot lights of the television studios.

Gratitude is expressed to WJBK-TV, to Ruse and Urban, and to the Doctors of Medicine for making this educational TV show possible.

Participants	*Topic*	*Date*
W. B. Cooksey, M.D., Detroit	Heart	December 17, 1950
George C. Thosteson, M.D., Detroit	Diabetes	December 24, 1950
F. J. Hodges, M.D., Ann Arbor	Cancer	December 31, 1950
Carleton Dean, M.D., Lansing	Amputees	January 7, 1951
Arch Walls, M.D., Detroit	Family Doctor	January 14, 1951
A. H. Whittaker, M.D., Detroit E. F. Lutz, M.D., Detroit	Industrial Health	January 21, 1951
LeMoyne Snyder, M.D., Lansing	Legal Medicine	January 28, 1951
W. S. Reveno, M.D., Detroit	Goiter Areas	February 4, 1951
H. B. Zemmer, M.D., Lapeer	Epilepsy	February 11, 1951
A. E. Schiller, M.D., Detroit	Skin Diseases	February 18, 1951
Mr. Emmet Richards, Alpena Frank Van Schoick, M.D., Jackson	Crippled Children Commission	February 25, 1951
L. Fernald Foster, M.D., Bay City	History of Medicine	March 4, 1951
J. J. Lightbody, M.D., Detroit	Arthritis	March 11, 1951
Earl G. Merritt, M.D., Detroit Dean C. H. Stocking, Ann Arbor	Relationship Between Pharmacist and Physician	March 18, 1951
A. C. Furstenberg, M.D., Ann Arbor Gordon H. Scott, Ph.D., Detroit	Doctor's Training	March 25, 1951
R. W. Teed, M.D., Ann Arbor J. S. DeTar, M.D., Milan Mrs. Marjorie Karker, Lansing Mr. E. H. Wiard, Lansing Mr. H. W. Brenneman, Lansing	What the Health Council Could Do For You	April 1, 1951
J. G. Bielawski, M.D., Detroit	Cardiac Housewife	April 8, 1951
Claire L. Straith, M.D., Detroit	Plastic Surgery	April 15, 1951
Ralph H. Pino, M.D., Detroit	Cataract	April 22, 1951
R. K. Whitley, M.D., Detroit	Pregnancy	April 29, 1951
J. G. Molner, M.D., Detroit	Health Department of Detroit	May 6, 1951
Raymond W. Waggoner, M.D., Ann Arbor	Emotional Factors in Diseases	May 13, 1951
A. E. Heustis, M.D., Lansing Harland Anderson, Ph.D., Lansing Otto van der Velde, M.D., Holland Ralph A. Johnson, M.D., Detroit	Blood	May 20, 1951
Mr. Palmer Bunker, Lansing Mr. Bennett McCarthy, Detroit Mr. C. F. Van Blankensteyn, Lansing	Vacation Safety	May 27, 1951
Robert J. Mason, M.D., Birmingham	Pediatrics	June 3, 1951
B. E. Brush, M.D., Detroit	Iodized Salt	June 10, 1951
O. B. McGillicuddy, M.D., Lansing	Hearing Defects	June 17, 1951
Wm. H. Gordon, M.D., Detroit	Your Doctor in War	June 24, 1951
John W. Towey, M.D., Powers G. T. McKean, M.D., Detroit	Tuberculosis	July 1, 1951
Alice E. Palmer, M.D., Detroit	Sunburn	July 8, 1951
Edwin DeJongh, M.D., Detroit	Migraine Headache	July 15, 1951
Archibald E. McGregor, M.D., Battle Creek	First Aid	July 22, 1951

(Continued on Opposite Page)

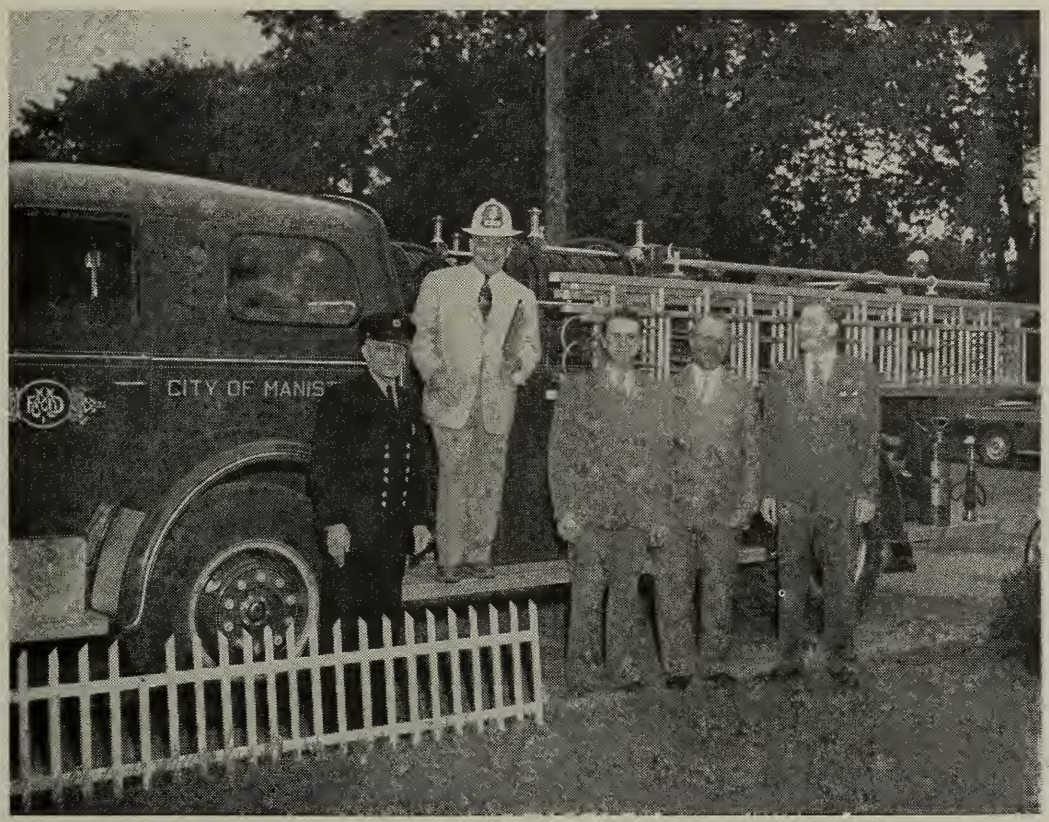
Fire Chief for Life

As long as he lives, L. Fernald Foster, M.D., will be Honorary Fire Chief of Manistique, Michigan.

The honor, accorded Dr. Foster at a ceremony on the lawn of MSMS Legal Counsel J. Joseph Herbert's home in Manistique on June 21 was attended by a distinguished delegation of Manistique citizens headed by Mayor James H. Fyvie, M.D. A scroll presented by William F. Hood, City Attorney, cited Dr. Foster's long advocacy of top-notch fire equipment and strong educational measures to control fire hazards.

His assistance in the obtaining of the latest "rig" newly purchased by the Manistique Fire Department was cause for the presentation occasion.

Dr. Foster's interest in the Fire Fans' Club, known as "Box 65" has also gained him honors as President of that organization in Bay County as well as Chairman of the Citizens' Advisory Committee to the Fire Department of Bay City.



Left to right—Manistique's Fire Chief Elmer Boals; Honorary Fire Chief L. Fernald Foster, M.D., Bay City; Mayor James H. Fyvie, M.D.; Councilman A. W. Hietman, and City Attorney Wm. F. Hood, all of Manistique.

(Continued from Page 992)

Frederick C. Swartz, M.D., Lansing	Old Age	July 29, 1951
Edgar E. Martmer, M.D., Detroit Max K. Newman, M.D., Detroit	Poliomyelitis	August 5, 1951
Harold J. Kullman, M.D., Dearborn John G. Markle, M.D., Detroit	Veterans' Rehabilitation	August 12, 1951
Kenneth B. Babcock, M.D., Detroit W. M. McNary, Detroit William Klein, Flint	Blue Cross	August 19, 1951
R. L. Novy, M.D., Detroit L. Fernald Foster, M.D., Bay City Mr. Jay C. Ketchum, Detroit	Blue Shield	August 26, 1951

(See page 994, also)

"Your Medical Mailbox"

Another Michigan State Medical Society Television Show

Presented each Wednesday, 10:00 A.M.
WXYZ-TV (Channel 7) Detroit

"Your Medical Mailbox" is beamed particularly to women television viewers. Begun in early summer, it has gained excellent acceptance as a part of the Bud Lanker show "Hello Girls." The program features a Doctor of Medicine each week with Bud Lanker *(Detroit Free Press* feature writer) as the Master of Ceremonies who asks various questions which seem to plague the feminine mind respecting matters medical.

Thanks go to WXYZ-TV, to Bud Lanker, and to the Doctors of Medicine who have aided this informational program.

Participants	*Topic*	*Date*
Arch Walls, M.D., Detroit	Family Doctor	June 27, 1951
Robert J. Mason, M.D., Birmingham	Poliomyelitis	July 4, 1951
Lawrence A. Pratt, M.D., Detroit	Medical Associates	July 11, 1951
James E. Croushore, M.D., Detroit	Tonsils	July 18, 1951
Frank Van Schoick, M.D., Jackson	Rheumatic Heart	July 25, 1951
Owen C. Foster, M.D., Detroit	Prenatal and Postnatal Maternal Care	August 1, 1951
O. D. Stryker, M.D., Mt. Clemens	Infectious Diarrhea	August 8, 1951
Earl G. Merritt, M.D., Detroit	Home Nursing	August 15, 1951

Lilly Entertains Wayne University Medical Students



Faculty and Students of Wayne University College of Medicine were guests of Eli Lilly and Company, at Indianapolis, June 3-4-5, 1951. During their visit, the Detroiters made a thorough inspection of the Eli Lilly Research Laboratories including the biological laboratory at Greenfield, Indiana, where demonstrations were made showing the production of biological products.

A day of instructional touring was followed by a social hour and dinner as guests of the officers of Eli Lilly.

"Nowhere in medicine are more dramatic therapeutic effects obtained than those which follow estrogen therapy in the girl who has failed to develop sexually. A daily dose of 2.5 to 3.75 mg. of 'Premarin' given in a cyclic fashion for several months may bring about striking adolescent changes in these individuals."*

* Hamblen, E. C.: Some Aspects of Sex Endocrinology in General Practice, North Carolina M. J. 7:533 (Oct.) 1946.

"PREMARIN" ®

Estrogenic Substances (water-soluble) also known as Conjugated Estrogens (equine).

"Premarin"—a naturally occurring conjugated estrogen—long a choice of physicians treating the climacteric—has been earning further clinical acclaim as replacement therapy in hypogenitalism.

In the treatment of hypogenitalism, the aim of "Premarin" therapy is to develop the reproductive and accessory sex organs to a state compatible with normal function.

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg., and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

"Premarin" contains estrone sulfate plus the sulfates of equilin, equilenin, β-estradiol and β-dihydroequilenin. Other α- and β-estrogenic "diols" are also present in varying amounts as water-soluble conjugates.

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CIVILIAN MEDICAL AND DENTAL CARE FOR ACTIVE DUTY AIR FORCE PERSONNEL

The United States Air Force is responsible for the provision of medical and dental care to United States Air Force military personnel on active duty, and to their dependents in so far as facilities are available. Whenever it is feasible and practicable for Air Force personnel to receive medical care at Air Force medical installations they should do so. Conversely, Air Force medical installations provide medical and dental care to all Air Force personnel who may be assigned in the area, whether or not these personnel may be assigned to the particular Air Force Base.

Naturally it is not possible to have USAF medical installations readily accessible to our personnel in every geographical location. In those locations where we do not have such facilities, it is necessary to depend on other governmental or civilian agencies for these services. These agencies include medical and dental services of the Armed Forces (Army and Navy), and other federal agencies, such as the Veterans Administration and the United States Public Health Service. When medical and dental services of government agencies are not available, care may be obtained from civilian sources at no expense to the individual, provided such care is a necessity and an emergency. Only active duty Air Force personnel on duty, leave or informal leave (pass status) or those people stationed where no other military or federal medical installation is available may utilize civilian medical care at Air Force expense. USAF military personnel absent without official leave (AWOL) are not authorized civilian medical care, but can receive treatment at any military installation. Dependents of active duty Air Force personnel are not authorized civilian medical care at Air Force expense.

All bills for services, including ambulance charges, rendered USAF military personnel by civilian physicians or medical facilities will include:

1. Full name, rank, service number and organization to which assigned for duty.
2. Duty status of patient, if known, i.e., duty, leave, or informal leave (pass).
3. Inclusive dates of treatment if hospitalized, otherwise, date and place of treatment.
4. Diagnosis.
5. Charges (itemized separately for services, drugs, x-rays, et cetera).
6. A statement certifying that the bill is correct and just; that payment has not been received; that the services rendered and the medicine furnished were necessary; and that charges do not exceed those customary in the vicinity.

Payment for medical and dental service properly submitted from civilian sources to USAF military installations will be accomplished promptly after receipt of necessary authenticated vouchers. The civilian physician is advised to send the bill for services rendered directly to the Commanding Officer of the nearest Air Force Base.

ARMY HEALTH RECORD AT HIGH LEVEL

Despite six months of Korean combat and the Army's rapid expanse during the last half of 1950, the Army's health was better for 1950 than in two of the four post World War II years, the Department of the Army has announced.

This is shown in a report by Major General George E. Armstrong, Army Surgeon General, giving data on medical admissions and the proportion of personnel rendered non-effective through illness or injury during 1950.

The average daily percentage of Army personnel unavailable for duty during 1950, either because of hospitalization or because they were restricted to quarters for medical reasons was 2.8. The same figure, with battle wounds and injuries subtracted, was 2.4 per cent, which may be compared with 2.2 per cent non-effective in 1949 and 2.6 in 1948. The years 1948 and 1949 are considered the healthiest in the history of the Army.

Even including battle wounds and injuries, the 1950 non-effective rate was far less than the non-battle rate alone for 1947 and 1946, when percentages were 3.6 and 4.1, respectively.

The Army's admissions for all causes in 1950 stood approximately midway between the 1948-49 figures and those of 1946-47. "Admissions" in the Army reflect all cases which are excused from duty for as much as one day in either hospital or quarters.

In 1950 the admissions for all causes represented 53.5 per cent of the Army's strength, compared with the low percentages of 46 and 48.2 for 1949 and 1948, respectively. The 1950 figure, however, was considerably lower than 63.1 and 64.8 percentages recorded for 1947 and 1946.

Total Army admissions are divided into three major categories: battle injuries and wounds; diseases; and non-battle injuries. Admissions for battle injuries and wounds were, of course, non-existent from 1946 through 1949. In 1950, they were equivalent to 3.3 per cent of the Army's strength.

Admissions for all diarrheas and dysenteries for the Army rose from three-tenths of one per cent of the Army's strength in 1949 to seven-tenths of one per cent in 1950. The 1948 rate had been five-tenths of one per cent.

There were considerable declines in the admissions for both pneumonia and tuberculosis over the preceding year. Admissions for all varieties of pneumonia declined from eight-tenths of one per cent in 1949 to seven-tenths of one per cent in 1950. Similarly, the incidence of tuberculosis declined from two-tenths of one per cent of the Army's strength in 1949 to one-tenth of one per cent in 1950.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

VOLUME 50 SEPTEMBER, 1951 NUMBER 9

Financing Arthritis Research in Michigan

By Henry T. Ewald, LL.D.
Chairman, Michigan Chapter
Arthritis and Rheumatism Foundation
Detroit, Michigan

IT IS indeed noteworthy that the Michigan State Medical Society and the editor of The Journal devote an entire issue each year to the results of research on arthritis, and I take this opportunity to extend my sincere thanks for this excellent service. To my knowledge no other state medical journal in the country has done such an outstanding annual job. Issues of the Michigan Journal devoted to arthritis that we have sent to our national organization and to other state medical societies have brought forth the warmest commendation.

I appreciate greatly the publication of a whole issue on arthritis in such an authoritative magazine, because it seems to me that second only to research is the education of the medical profession itself on the newest drugs, the proper use of these drugs and the newest treatments for arthritis. I understand that in the past there has not been a great deal of specialization on the treatment of arthritis because so little was known of it—and medicines available had only an ameliorating effect.

I know we do not have all the answers yet, but I think we have come a long way; at least we have sufficient leads to intelligent research that may finally give us the answers.

Almost as important as the research projects which the Michigan Chapter underwrites is the training the doctors receive who are directing the research—the training the younger doctors receive who work with them—as well as the other technicians in the hospitals and medical schools to which our grants-in-aid have been given.

It is only natural that the hospitals and medical schools should become the nerve centers for the dissemination of information resulting from their researches and clinical treatments. The skills and information developed flow out to the doctors in the immediate vicinity. Adding to the dissemination of this information in Michigan is the State Medical Association Journal in such issues as the present one on arthritis, so that doctors at great distances from these centers in the state may be kept up to date. This is the type of thing that cannot be bought! And information itself—no matter how important—is of little value unless it is passed on and used.

At this point I wish to extend sincere appreciation to the United Health and Welfare Fund of Michigan, Inc., which provides our funds. This state-wide organization is represented in Detroit and Wayne County by the United Foundation.

United Health, with headquarters in Lansing, each year is doing a better job, getting more communities organized, and working out its problems in a most business-like manner. It is likewise fitting that this organization should be headed for the second successive term by a physician, Warren B. Cooksey, M.D., who is giving most unselfishly of his time.

And here I would bespeak a word to all doctors to give as much help as they can to United Health in their local communities, for it seems to me that no organization is doing more to raise money for furthering better health than this federated fund-raising organization.

Because the Michigan Chapter is a participating agency in United Health, it is provided with more funds than any other state chapter of the National Arthritis and Rheumatism Foundation in the

country and is able to provide more research than any other state chapter.

Grants-in-aid for the two years which ended August 1, 1951, have totaled $147,484.32, and we have just made grants for another twelve months totaling approximately the same as we awarded the last twelve months—upwards of $80,000. Thus, during the three years we have been providing grants, we have contributed nearly a quarter of a million for research on arthritis in Michigan.

While there are a number of men, both medical doctors and laymen, who are doing fine work for the Michigan Chapter, Arthritis Rheumatism Foundation, I would like to select two for their outstanding contributions—James J. Lightbody, M.D., and H. J. McLaurin.

Dr. Lightbody, our Medical Director, is in charge of our research program, has a wide acquaintance both in Detroit and Michigan among the doctors and possesses a warm friendly personality that makes his work on our behalf most effective. Mr. McLaurin, our vice chairman, who is on the board of directors of the National Foundation, is among the top divisional campaigners of the Torch Drive from which we obtain more than half our income and gives most generously of his time throughout the year.

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Arthritis Research in Michigan-II

By J. J. Lightbody, M.D.
Detroit, Michigan

ONE YEAR AGO the Arthritis and Rheumatism Foundation and the Michigan Rheumatism Society were given the privilege and responsibility of collecting scientific articles for the September issue of this JOURNAL. This year we have again been honored with the same privilege, and we hope that each year will show increasing interest in this work.

The Michigan Chapter has assisted clinical investigators at hospitals and clinics for the past two years, and there has been a reawakening of interest among physicians and patients in the treatment of all types of joint diseases. The publicity given to the activities of the Foundation has stimulated interest among the citizens of the state of Michigan, so much so, that the offices of the Foundation have been used as a sort of clearing house for information and for the direction of patients to proper places for diagnosis and treatment and for the dispensing of literature relative to the general subject of rheumatism.

Most of the research projects that have been in operation in the state are located in Detroit and Ann Arbor, but these groups have accepted and treated patients from all over the state of Michigan. During the first year of operation we were able to assist five groups in various fields of investigation, and during the past year we have helped seven investigative projects and this year we are assuming the partial or complete subsidy of operation for nine arthritis research projects extending from August 1, 1951, to July 31, 1952.

Most of the clinical investigations in arthritis have been concerned with determining the effectiveness of ACTH and cortisone, or a combination of these, and there has been much duplication of energy throughout the country in the investigation of these hormones. This year, however, we expect to treat many more patients with hormonal therapy in conjunction with other drugs than we have done in the past two years, so that more individuals with arthritis will receive the benefits derived from these new preparations.

Basic and clinical research in arthritis in Michi-

gan has been greatly stimulated by the presence of a local organization that is willing and able to assist interested clinicians in the investigative field. Good research not only demands the time of well-trained men, but it necessarily demands good modern equipment that very often costs considerable money. The Michigan Chapter of the Foundation has set an administrative policy to the effect that large sums of money will not be allocated for expensive laboratory equipment to any of our projects. Last year certain projects were not able to complete their work due to inadequate equipment and insufficient trained personnel. This situation has now been corrected so that on August 1, 1951, the Foundation will have in active operation nine research groups at different hospitals and clinics. Most of the work has been centered around direct services to patients so that more people throughout the state may receive these benefits. There is a great need for clinical research in the field of orthopedic surgery and rehabilitation combined with physiotherapy and accepted hormonal therapy.

Through the co-operation of the National Foundation, we have available for general use a 16 mm. sound movie entitled "The Problems of Arthritis." This film has been shown to many civic groups and hospital staffs, and includes the historical background of rheumatism, the social and economic problems associated with disability and describes the traditional type of treatment used in the past. In addition, the movie brings the subject up to date by presenting the present problems of diagnosis and treatment of arthritis, including the use of ACTH and cortisone. This sound movie runs for a period of approximately thirty minutes, and permission for the use of this film may be obtained by writing to the Detroit office of the Foundation.

This year we have completed arrangements with the Visiting Nurses Association to increase the home care of arthritics. The Visiting Nurses Association has been tremendously handicapped by a shortage of trained physiotherapists because industrial concerns, hospitals, clinics, private practitioners and the Armed Forces have placed an unusual demand on their services. Many of the regular visiting nurses are being trained in the application of home type of physiotherapy in the education of the arthritics.

The Board of Directors and the Medical Advisory Committee have approved research projects for operation at the following places: Wayne County General Hospital, Child Research Center of Michigan, Grace Hospital, Henry Ford Hospital, Harper Hospital, Providence Hospital, Receiving Hospital, University of Michigan, and Wayne University.

Dr. Samuel Jacobson, who is in charge of the Arthritis Research at Wayne County General, will continue the observations on the effect of diet and dehydration on arthritics. Various resins are being used for prolonged dehydration effects in conjunction with the observation of variations in adrenal cortical function.

The Child Research Center of Michigan is continuing the investigation of blood serum proteins by electrophoretic and immunological viral studies, in addition to continuing work on steroid excretion in rheumatoid arthritis. Dr. Hugo Freund, president of the Child Research Center of Michigan (Children's Fund of Michigan), is in charge of this project.

Grace Hospital has developed its own endocrine laboratory with new modern equipment and will investigate the use of various steroids and other hormones in conjunction with the use of gold therapy. An Arthritis Research Clinic is now being developed at Grace Hospital under the direction of Dr. Frank A. Weiser and Dr. Dan W. Myers.

Dr. Dwight Ensign, Chief of the Arthritis Department at Ford Hospital, will conduct investigations in the field of liver function in relation to rheumatoid arthritis.

Harper Hospital Research Committee, with Dr. Alvin Price as chairman, will continue the study of rheumatoid arthritis using various types of ACTH for investigation. In addition, tracer studies of thyroid activity are being conducted with radioactive iodine on those patients receiving ACTH. This work is under the direction of Dr. Kenneth Corrigan, Research Physicist at Harper Hospital.

Providence Hospital Arthritis Research Group will investigate the activity of prolonged action ACTH, with Dr. E. A. Peterman as director of this project.

Receiving Hospital, in conjunction with Wayne University, will study the combined effects of gold and cortisone in rheumatoid arthritis, and will also evaluate the use of massive doses of cortisone over a short period of time in the production of prolonged remissions in rheumatoid arthritis. Dr.

Gordon Myers, chief of the Medical Department, is in charge of this project.

Dr. William Robinson, head of the Arthritis Clinic at the University of Michigan Hospital, will continue his extensive investigation of physiological changes observed by treating patients with various hormones and to study the mode of action of these drugs.

Dr. Ernest Gardner, Professor of Anatomy at Wayne University, will be assisted in a basic research problem. He will study the growth rates of articular cartilage, joint capsules and ligamentous structure of embryos.

Several fellowships have been awarded by our projects this year, and graduate students, interns, and residents are being given the opportunity to observe clinical research in arthritis. The National Foundation is offering a certain number of attractive scholarships in Michigan, and applications for these scholarships can be made by writing to the Medical Director of the Michigan Chapter. Applications must be received before November 1, 1951.

The Foundation and the Medical Profession of this State have been very fortunate in having the continued support of such men as Henry T. Ewald, president of the Campbell-Ewald Company; and H. J. McLaurin, general agent of the Atena Life Insurance Company. These two men have gathered around them a nucleus of civic and health-minded men on the Board of Directors, whose interest and support we could not possibly do without.

The activities of the Michigan Chapter are supported entirely by the United Foundation of this State which is the Torch Fund in Detroit. Our relations with the national organization have been amicable and mutually satisfactory, particularly, through the fine co-operation of Dr. Gideon de Forest, National Medical Director; Mr. Thomas Freeman, Executive Director; and Mr. Peter Rhodes, Director of Publicity.

JMSMS

John T. Flynn, author of "The Road Ahead" and a series called "Behind the Headlines," has this to say on government largess: "Of the 150,000,000 people in the U. S., how many received money from the government last year? 34,653,000 people collected. They got 30 billion dollars. In other words, our federal and local governments took 30 billion dollars away from two-thirds of the people and gave it to one-third of them. Four-fifths of these people would not be on any kind of government payroll under the system of government we had fifteen years ago. . . ."—*Selected.*

The Impostor—Arthritis of the Spine

By William H. Blodgett, M.D.
Detroit, Michigan

UNDER the diagnostic aliases of lumbago, neuritis, sacroiliac strain, kidney, ureter and bladder disease, ptosis of various organs, displaced vertebrae, lumbosacral instability and even herniated nucleus pulposis, the patient with atrophic arthritis of the spine moves from one doctor's office to another in search of advice and treatment.

The early symptoms and signs of rheumatoid arthritis of the spine simulate many other conditions and since there are remissions and exacerbations in the course of the disease the patient and the doctor may accept an incorrect diagnosis and believe that treatment has been effective, only to be disappointed when a recurrence of symptoms occurs.

The x-ray often does not indicate the presence of the disease until several years after the onset of symptoms. What, then, are the findings which can lead one to suspect and establish the diagnosis in the early case?

The patient, predominately male fourteen to one, and between the ages of twenty to forty-five, presents himself because of pain. This may be referred to any area of the spine, to paravertebral areas, scapulae, ribs, abdomen or inguinal areas. Often the patient gives the history of having had similar episodes of pain, which may have been induced by inclement weather. During the day, the patient may be comfortable but pain occurs at night and may be relieved by sleeping in a sitting position.

In addition to the primary complaint of lumbar or dorsal pain, there may be the presence of intermittent cervical pain or periodical reduction of range of neck motion. On occasion, the patient may have experienced symptoms referred to peripheral joints.

The physical examination of the patient with early atrophic arthritis of the spine may be very unrevealing. However, there are certain identifying characteristics of the impostor—impostor because the disease for years may wear the mask of other entities.

Instead of the usual lower lumbar limitation

of motion as seen in the unstable low back, the patient presents widespread reduction of motion, which does not improve much with sitting or supine examination of spinal range. In addition, one may be able to demonstrate minimal reduction of cervical spine motion or limited range of hip, internal rotation or hyperextension. The tests for sacroiliac pathology may be intermittently positive. Reduction in chest expansion may be the first indication of costovertebral joint involvement and thus give the lie to a spurious diagnosis.

The laboratory findings, including the x-ray, may not only be negative but if they are negative may lead one away from the correct diagnosis. An elevated sedimentation rate is of considerable diagnostic import—but don't be misled by a normal reading. The blood count and chemistry are not of practical diagnostic value though there are disputed reports of variations of levels of blood constituents.

Though the x-ray may be negative for several years after the inception of symptoms, the early changes are decalcification of the periphery of the bodies or of the subchondral areas of the articular facets. When disc space-narrowing and fusion have occurred the diagnosis can be made across the street. X-ray manifestations of arthritic changes of the sacroiliac or hip joints may be of the greatest significance in evaluation of the condition of the spine, as sometimes these changes precede by many months the roentgenological changes seen in the spine.

In the absence of any positive clues to diagnosis, repeated examination of the patient may be the deciding factor. As a result one of the findings, as outlined above, may be demonstrated. In addition, it is valuable to have the patient keep a temperature chart as a mild hyperpyrexia is often present. A final indication of the presence of early atrophic arthritis of the spine may be that the patient fails to respond to the treatment as outlined for one of the many conditions which are worn as a mask by this slowly progressive lesion of the spine. Failure to respond to treatment should suggest the need for a change of diagnostic impression rather than a change of vitamin, physical therapy or the need for a new endocrine.

Summary

The recognition of early atrophic arthritis of the spine is a difficult diagnostic problem. Before the correct entity is recognized the patient may have been treated for many different conditions and may have undergone at least one operative procedure.

The age, sex, irregular trunk complaints, possible associated cervical, sacroiliac and hip involvement are important factors in the history. On examination, wide restriction of spine motion, limited neck or hip range, as well as reduced chest expansion are significant.

Sedimentation rate and temperature curve are valuable. The x-ray changes occur late in the process and may, indeed, be misleading because of a negative report.

In establishing the diagnosis of atrophic arthritis of the spine, of greatest importance is that the possibility of the presence of the disease be borne in mind even though the confirmation may be slow and difficult.

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MSMS

A survey of job opportunities for older workers has been conducted by the United States and State Employment services in California, New York, Ohio, Pennsylvania, and Texas. (There are at present 11.5 million persons aged sixty-five and over; 31 million are in the group between forty-five and sixty-four.) This survey of one-third million older workers emphasized the following points:

1. Though employment opportunities for older workers improve when the labor market is tight, there still is evidence of employer resistance.
2. Seniority clauses protecting older workers while they are employed are common in collective bargaining, but these do not help when the workers are displaced through normal industrial change or for other reasons. Once unemployed, older workers have greater difficulty in finding work than their younger competitors.
3. Prejudices and misconceptions about older workers are reflected in the discriminatory age requirements which exist. The time in life when a worker becomes "too old" varies with occupation, industry, and location of the job.
4. Older workers tended to gravitate towards jobs where employer resistance was lightest, particularly service jobs and skilled trades.
5. Workers given the benefit of counseling and individual placement service had twice as many employment opportunities as those who did not.—*Research Council for Economic Security,* July, 1951.

Sustained Pituitary Adrenocorticotropic Hormone (ACTH)

By Earl A. Peterman, M.D.
Detroit, Michigan

AS PITUITARY adrenocorticotropic hormone becomes more generally used clinically, certain changes in the trend of its use become more clearly discernible. The earlier tendency to use the hormone in large doses for short "courses" of treatment is changing toward lower dosage over a longer period of time. Another tendency is toward the "maintenance" type of treatment for use in the long-standing chronic forms of rheumatoid disease for which it at first was thought to be contraindicated.

The adrenal cortex is in a state of constant activity,[1] and responds to very minute amounts of pituitary adrenocorticotropic hormone circulating in the blood.[3] The gland shows a high degree of selectivity in removing the hormone from the circulation.[4] When hormone labeled with I^{131} is injected intravenously, it is rapidly concentrated in the adrenal cortex from which it is quickly used up. Observations made during the administration of the hormone by means of the continuous intravenous drip[3] show that the adrenal cortex responds most efficiently when mild stimulation is applied constantly. By this route of administration, 5 to 10 mg. of the hormone per twenty-four hours, produced an adequate clinical response, thereby showing the usual procedure of giving 100 mg. per day in divided doses to be very inefficient and wasteful. Their observations also showed that administration of the hormone by continuous intramuscular drip was not as efficient as the continuous intravenous method. They postulated the inactivation of a portion of the hormone by muscle enzymes.

These facts emphasize the clinical need of an intensified search for a simplified and practical method of releasing into the blood stream a small, but constant supply of the hormone. Obviously, both the continuous intravenous drip method of administering the hormone and the intermittent injections given every six hours are highly impractical for the average patient.

Attempts to meet this need have met with only partial success. Injection material prepared by adsorbing the hormone onto colloidal aluminum phosphate proved to be too irritating even when suspended in 18% gelatin or in polyvinyl-pyrrolidone.[6] A more successful method[7] was developed by dissolving the hormone in propylene glycol before it was added to the colloidal aluminum phosphate suspended in polyvinyl-pyrrolidone just prior to using. Aside from the local irritation produced by the colloidal aluminum phosphate, no untoward reactions were encountered with any of these preparations. Getting the idea from the amount of procaine used in SR penicillin, Holbrook[2] used 125 mg. of procaine per cc. simply as a solvent for the hormone and was able to maintain eight of thirteen patients very satisfactorily on one injection daily, whereas the other five required two injections per day. In his hands from a clinical standpoint the procaine preparation produced results equal to or better than the colloidal aluminum phosphate material.

Procedure

At first the patients were hospitalized for the first two weeks. Later the hospitalization was reduced to one week and subsequently all were treated as out-patients. The usual laboratory procedures along with daily weight and blood pressure readings were made. At the same time the blood samples were used for special studies such as serum glucosamine levels to be reported later.

The daily allotment of pituitary adrenocorticotropic hormone* was suspended in an hypertonic dextrose gelatin menstruum, consisting of 18 per cent non-antigenic gelatin** and 8 per cent dextrose. Regardless of whether the daily amount of hormone given was 120 mg. or only 5 mg., it was always suspended in 5 cc. of the menstruum. Preliminary tests showed the sustaining time to be roughly proportional to the mass of the menstruum placed in a single intramuscular depot. Care was taken to keep the injected air bubbles at a minimum and to abstain from massage after injection. Tests showed these factors increased the surface

From the Department of Research, Providence Hospital, Detroit, Michigan. Aided in part by a grant-in-aid from the Michigan Chapter, Arthritis and Rheumatism Foundation.

* Supplied as ACTHAR Armour Laboratories, Chicago.

** Nonantigenic gelatin very kindly supplied by Dr. Edward K. Harvill, Director of Research, Ernst Bischoff Company, Inc., Ivoryton, Connecticut.

area of the injected mass and hastened absorption thereby reducing the sustaining time for the hormone.

The hormone suspensions were prepared by injecting the hot sterile menstruum into the dry hormone vial and withdrawing the portion needed which was then made up to volume by adding extra menstruum and shaking. Not all batches of hormone were alike. Some were found that clumped instead of forming an homogenous suspension. To each of these vials was added .25 cc. of sterile distilled water before the gelatin menstruum was introduced.

Preparation of the hormone suspension was begun with the menstruum hot enough to prevent gel formation before it was injected. Great care had to be exercised not to inject the material too hot as this resulted on several occasions in a temporary soreness in the muscle afterwards.

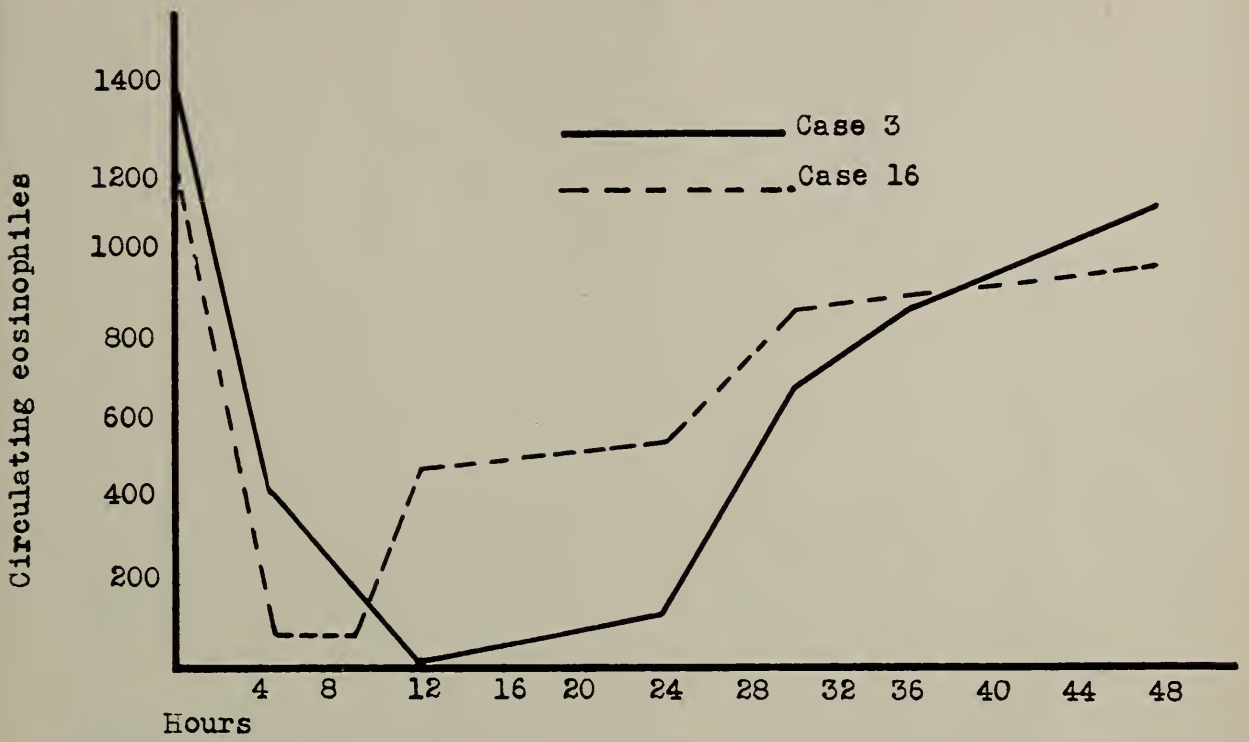


Fig. 1. Physiologic effect of a single intramuscular injection of 100 mg. of sustained pituitary adrenocorticotropic hormone (ACTH).

Results

The physiologic effect of a single injection in each of two representative patients of 100 mg. of pituitary adrenocorticotropic hormone suspended in 5 cc. of hypertonic dextrose gelatin menstruum is shown in Figure 1. The most specific, rapid and sensitive index of persisting adrenocorticotropic hormone activity,[4] obtained by means of serial circulating eosinophile counts, shows approximately 20 per cent of the hormone activity in Case 16 and 16 per cent of the hormone activity in Case 3 to be present at the end of forty-eight hours after the injection. The time required to reach the maximum physiologic effect from a single injection was found to be from five to twelve hours. A high degree of physiologic effect was sustained at eighteen to twenty-four hours, becoming gradually exhausted thereafter.

Another type of eosinophile response was obtained in some of the patients studied as shown in Figure 2. When the eosinophile count was low to begin with, 40 mg. of the sustained pituitary adrenocorticotropic hormone given in a single injection daily produced an increase in eosinophiles for the first few days, decreasing to zero usually during the second week of treatment. The clinical result was in no way influenced by either type of early eosinophile response, because of the tendency of the circulating eosinophiles to disappear in either case as the treatment progressed.

The patients tolerated the injections surprisingly well. The great majority of the injections caused no discomfort whatsoever afterwards. The few instances of complaint of transient local muscle

DATA ON TWENTY-FOUR PATIENTS TREATED WITH SUSTAINED PITUITARY ADRENOCORTICOTROPIC HORMONE (ACTH) INTRAMUSCULARLY

No.	Case	Age	Sex	Diagnosis	Days Treated	No. of Treatments	ACTH Daily Am't	Total Menstruum	Total ACTH mgms.	Reactions	Remarks
1	M.K.	63	Fe.	Rheumatoid arthritis crippled 8 years	43 days	37	120-20	185 cc.	1.705	Weight gain Euphoria	Markedly crippled. Fractured hip 14 mo. ago. Bedridden since, up and about after 3 weeks of treatment.
2	H.J.	53	Fe.	Rheumatoid arthritis 3 yrs.	43	37	40-20	185 cc.	1.370	None	Patient in relapses after 3rd course of cortisone. Response satisfactory.
3	M.B.	48	M.	Mixed arthritis 3 yrs.	40	29	100-20	145 cc.	.935	None	Thorn test showed adrenal cortex insufficiency. Clinical response to treatment very satisfactory. Also see Fig. I.
4	F.B.	58	M.	Rheumatoid arthritis 2 yrs.	40	31	40-20	155 cc.	.700	None	Patient in relapse after 3rd course of cortisone. Response satisfactory.
5	H.O.	45	M.	Rheumatoid arthritis 2 yrs.	37	26	40-20	130 cc.	.620	None	Complete remission.
6	R.F.	59	M.	Rheumatoid arthritis 10 yrs.	32	32	20	96 cc.	.640	None	Had aqueous injections at 6 and 12-hr. intervals for 3 wks. prior. Clinical progress noticeably better on 50% less hormone.
7	J.G.	45	Fe.	Rheumatoid arthritis 7 yrs.	33	28	40-20	140 cc.	.700	Weight gain	Severe relapse from 8 wks. cortisone treatment. Had moon facies. Weight gain, hypertrichosis before ACTH. Response satisfactory.
8	N.M.	47	M.	Rheumatoid arthritis 7 yrs.	27	23	40-20	115 cc.	.520	Mild Euphoria	Complete remission.
9	M.Q.	63	Fe.	Rheumatoid arthritis 8 yrs.	26	21	40-20	105 cc.	.780	Wt. gain Moon facies	Severely crippled. Response satisfactory.
10	E.B.	51	Fe.	Rheumatoid arthritis 3½ yrs.	26	21	40-20	105 cc.	.460		Aqueous injections. ACTH every 6 hrs. for 2 wks. prior (100-80-40 mgm.). Extreme nervous excitability. Bromide acne. Refused further aqueous injections. Marked improvement under sustained ACTH.
11	E.S.	—	M.	Rheumatoid arthritis	26	20	60-5	100 cc.	.335	Wt. Gain	Relapse from 1 course of cortisone. Response satisfactory.
12	W.A.	45	M.	Rheumatoid arthritis 9 yrs.	25	19	40-20	95 cc.	.500	Systemic Reaction	Chills and fever 8 hrs. after 6th injection 40 mgms. Reduced ACTH to 20 mgm. daily. Marked improvement after reaction.
13	G.B.	55	Fe.	Arthritis, mixed spine Hypertension	26	22	20	110 cc.	.440	None	Complete remission of arthritis. Blood pressure reduced from 240/120 to 170/110 before ACTH. After ACTH 140/110.
14	D.M.	41	Fe.	Rheumatoid arthritis 22 yrs.	22	17	40-20	85 cc.	.460	Wt. Gain	Complete remission.
15	D.C.	50	M.	Status Asthmaticus	25	25	10-25	125 cc.	.475	None	Aqueous ACTH injections for 3 wks. prior. Unable to maintain on 10 mgs. daily. Management satisfactory at 25 mgs. daily.
16	C.O.	9	Fe.	Allergic Dermatitis	41	18	100-20	90 cc.	.390	None	Complete remission. First since infancy.
17	M.C.	39	Fe.	Rheumatoid arthritis 7 yrs.	20	17	40-20	85 cc.	.520	Wt. Gain Moon facies	Satisfactory progress toward remission.
18	R.M.	47	M.	Rheumatoid arthritis 10 yrs.	19	16	40-20	80 cc.	.580	None	Satisfactory progress toward remission.
19	N.G.	49	Fe.	Rheumatoid arthritis 19 yrs.	19	15	20	75 cc.	.300	None	Satisfactory response.
20*	H.T.	68	M.	Chr. lymphoid leukemia mitral insufficiency	19	19	40	95 cc.	.760	Wt. Gain	Semi-stuporous. Life maintained on blood transfusions. Buccal ulcerations healed in 3 days. Became alert, ate well. Out of bed 4th day. Blood counts showed improvement in 48 hrs. No transfusions after ACTH. Continues to improve.
21	A.S.	55	Fe.	Multiple Sclerosis 13 yrs.	18	14	40-20	70 cc.	.560	Wt. Gain Moon facies	Patient claims to feel "wonderful" and "stronger."
22	B.P.	40	M.	Rheumatoid arthritis 3 yrs.	17	14	40-20	70 cc.	.320	Systemic Reaction	Mild chills and fever with profuse perspiration 10 hrs. after second 40 mgs. injection. Marked improvement after reaction. Treatment continued at 20 mgs. daily.
23	H.L.	83	M.	Intractable subdeltoid bursitis	17	14	20	70 cc.	.280	None	Complete remission.
24	E.K.	52	M.	Rheumatoid arthritis	17	14	40-20	70 cc.	.480	None	Relapse after 2 courses cortisone. Response satisfactory.

*Courtesy Dr. Anthony G. Sack

soreness following the injection usually occurred during the first few days. Out of 532 injections in the twenty-four patients studied only two instances of a general reaction were encountered. In the first instance (Case 12) mild chills and fever followed by moderately profuse perspiration occurring eight hours after the sixth injection of 40 mg. of sustained adrenocorticotropic hormone. The reaction occurred at home, after the patient had completed his hospital stay. The incident was not reported until the following visit, thereby eliminating any direct observations or study during the reaction, which apparently took place over a period of several hours.

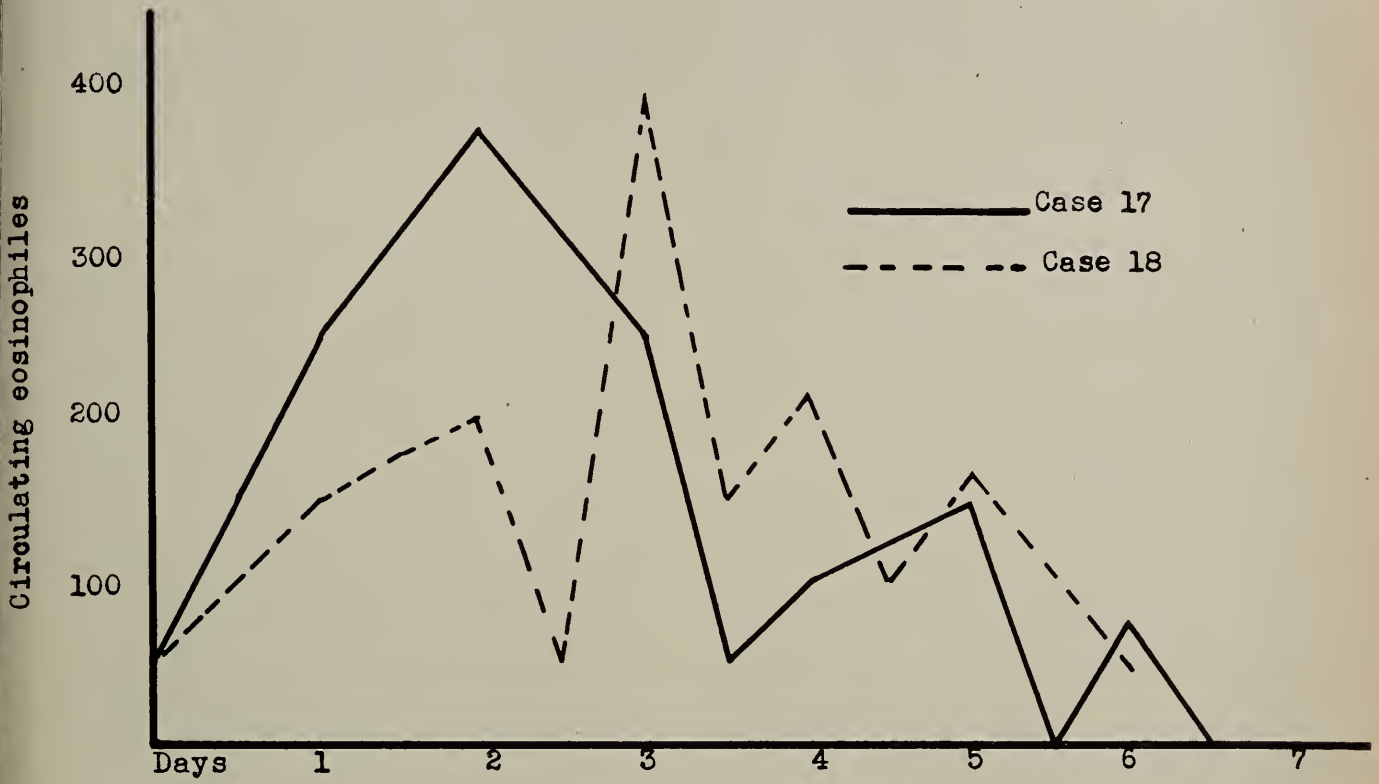


Fig. 2. Physiologic effect of daily intramuscular injections of 40 mg. of sustained pituitary adrenocorticotropic hormone (ACTH), when the eosinophile count was low to begin with.

A second systemic reaction occurred in the home (Case 22) without benefit of direct observation, approximately 10 hours after the second injection of 40 mg. of sustained adrenocorticotropic hormone. As reported the next day the details coincided with the report of the first case with the exception that the second reaction was much milder in nature. Each patient was in a state of mild euphoria and jokingly reported the incident at leisure. Both these patients experienced a very noticeable improvement in their arthritic symptoms immediately following their respective reactions. With no interruption in treatment the daily amount of sustained adrenocorticotropic hormone in each case was decreased from 40 to 20 mg. in the standard amount of menstruum and no further untoward symptoms occurred.

The accompanying chart gives the pertinent data on the twenty-four patients studied.

Comment

While hypertonic dextrose gelatin menstruum for sustaining the action of pituitary adrenocorticotropic hormone leaves much to be desired, it nevertheless provides a satisfactory method of management from the patient's viewpoint and also lends itself well to ordinary office procedure. The majority of patients do not need to be hospitalized and the difficulties encountered with home treatments are eliminated.

When the injections are given daily the eosinophile count shows that the effect of the preceding injection is not entirely gone. According to Roche[7] the effect of any single dose probably depends on the state of the adrenal, and each succeeding dose hitting the adrenal at a higher

state of activity, would be more effective, thereby producing a "stepladder" effect or accumulative response. It is postulated that the two systemic reactions which occurred in this series occurred on this basis. Sayers and associates[5] describe a similar reaction in a man given a single 100 mgm. dose intravenously in 200 ml saline over a period of one and one-half hours.

The so-called "rebound" symptoms which often occur after a single injection of the hormone in aqueous solution did not appear at any time. The sustaining action of the gelatin vehicle apparently allowed the physiologic activity of the exogenous hormone to fade out slowly. This would allow the patient's own pituitary hormone production to begin in time to prevent the "rebound" phenomena when only a single injection was given.

This is important from the office treatment standpoint where injections are omitted on Sundays and holidays.

This study tends to agree with the observations made by the continuous intravenous drip[3] method of administration, that the adrenal cortex responds most efficiently when the stimulus is applied mildly but continuously. By continuously sustaining the physiologic action of pituitary adrenocorticotropic hormone injected intramuscularly an adequate clinical effect was maintained with approximately 60 per cent less hormone than was usually required by the more frequent and rapidly absorbed aqueous solution.

Most of the patients in this series were of the chronic long standing classification for which the frequent aqueous injections were not very well recommended. The satisfactory response obtained indicates that this class of patient may be greatly benefited by mild continuous adrenal cortical stimulation.

Summary and Conclusions

Twenty-four patients were given daily intramuscular injections of pituitary adrenocorticotropic hormone (ACTH) suspended in 5 cc. of a sustaining menstruum consisting of 18 per cent nonantigenic gelatin made hypertonic with 8 per cent dextrose. Serial circulating eosinophile counts showed the maximum physiologic effect from a single injection to be reached in from five to twelve hours. The effect was well maintained from twelve to twenty-four hours, gradually diminishing from twenty-four to forty-eight hours. As each succeeding daily injection of the hormone was given before the effect of the preceding one was gone, a mild continuous adrenal cortical stimulation was obtained. Adequate clinical response was maintained with approximately 60 per cent less hormone than was formerly used. Chronically ill patients, in whom pituitary adrenocorticotropic hormone was formerly thought to be contraindicated, responded satisfactorily to this treatment.

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CANCER COMMENT

(Continued from Page 988)

proximity to a restroom." Such a recommendation makes sense to both the patient and the plant physician and promotes harmony.

One purpose of the cancer program has been to remove the stigma from the cancer patient. Community consideration and self respect are enhanced by the return of the cancer patient to his usual or similar occupation. This objective is attained by the attention of the family physician to his patient's personal problems as well as to therapy of the malignancy.

Cortisone in Rheumatoid Arthritis

An Interval Report

By Alvin E. Price, M.D., James J. Lightbody, M.D., William S. Reveno, M.D., and Elmore C. Vonder Heide, M.D.
Detroit, Michigan

IN A PREVIOUS article, we reported our observations on the use of cortisone in a series of fifteen patients with rheumatoid arthritis whom we had observed over a period of eight months. The present report is concerned with a group of patients which includes these original fifteen patients, treated over a more prolonged period of time and, in addition, a series of patients observed jointly by all of us as well as thirty-four who were treated in private practice. A total of sixty-three cases are included, all of whom have received cortisone* for at least three months.

The group consisted of twenty-six males and thirty-seven females, ranging in age from nineteen to seventy years. All had multiple joint involvement with the duration of illness varying from four months to thirty-six years. Prior to the institution of cortisone therapy, most patients had received a wide variety of treatments with varying response.

Except in only a few cases, the dosage of cortisone administered consisted of an initial intramuscular injection of 300 mgm., followed thereafter by 100 mgm. daily for two weeks. After this, the dosage was reduced to 100 mgm. on alternate days for from one to three weeks. Thereafter, an attempt was made to maintain the patient on 150 mgm. twice weekly. Many, however, required more frequent injections, i.e., three times a week, and for these the individual dosages varied from 75 mgm. to 150 mgm.

After the advent of Cortone tablets for oral use, all patients were transferred to this preparation, the initial dose varying from three to four tablets a day for several days, followed by a maintenance dose of one tablet (25 mgm.) twice, and in some cases three times a day. This dosage was continued until the shortage of the drug made it necessary to reduce it to either one half or one tablet daily. This proved inadequate in all cases although some patients believed that they experienced less pain than before the drug was started. The results hereafter described were observed up *to* the period of drug shortage, and do not cover the temporary period of inadequate dosage which followed.

Throughout the course of cortisone therapy, all patients were provided with a diet having a salt content which did not exceed one gram. This was carefully adhered to in most cases, although several carelessly disregarded it and as a result developed varying degrees of edema.

Supplementary Therapy

In most of the patients, physiotherapy was used as an adjunct to cortisone during the two-week period of hospitalization. This consisted of baking and massage by trained physiotherapists, and in some hydrotherapy in the Hubbard tank was used. Analgesics, consisting principally of salicylates, occasionally supplemented with codeine, were used freely until the effect of cortisone became established. Tranfusions were used in those having a significant anemia.

It was recognized early that cortisone therapy alone was of value only if given in adequate dosages and for indefinite periods of time. Withdrawal of the drug for five to seven days, or reducing the dosages below the maintenance level, invariably resulted in recurrence of pain and stiffness. It became apparent, therefore, that some attempt should be made to supplement the steroid therapy with some drug which would augment and/or prolong its effectiveness. Because of the apparent relationship originally noted by Hench between the clinical course of rheumatoid arthritis and such biochemical phenomena as pregnancy (and jaundice); and because in certain cases, the arthritis had its onset immediately *after* the *cessation* of *menstruation,* and in others a definite exacerbation of symptoms seemed to occur *during menstruation,* it occurred to one of us (W. R.) that the use of the sex hormones might in some way affect or alter the course of the disease. These hormones were accordingly administered in large doses simultaneous with the administration of cortisone. The first patient to

* Five patients are included who were given ACTH for the first week of their hospitalization, following which cortisone was given.

From the Research Division, The Harper Hospital. Supported by a grant from the Michigan Chapter, Arthritis and Rheumatism Foundation.

receive this developed her arthritis along with her menopausal symptoms, approximately three months before the cessation of her menses. Stilbesterol in 15 mgm. daily dosages were well tolerated by the patient, and during its administration there was some pain relief with reduced stiffness and increased mobility. Because considerable disability still persisted, cortisone was given for nine days and at the end of this time all joint pain and swelling had disappeared and mobility was normal. The estrogen was continued for nine weeks, and the remission has been since maintained without interruption.

Following this somewhat encouraging experience, estrogen (usually stilbesterol) and androgen (usually testosterone) were administered to twenty female and six male patients, respectively. While some patients, notably those receiving estrogen, thought they noted an improvement in their general condition, in no case did the combined therapy exert a noticeable effect on the arthritic process.

Other supplementary therapy was used in certain selected cases during the course of cortisone therapy. Following the work of Howell, Etamon was tried in seven cases. The results were disappointing and in no way substantiated those previously reported. Vitamin C, administered intravenously and orally in large doses, was given to two patients. In one there appeared to be limited improvement following its use. Gold (Myochrysine) was given to two patients, with indifferent results.

Laboratory Studies

Sedimentation rates (Westergren) were determined in practically all patients immediately before the beginning of cortisone therapy, and follow-up determinations were then made after two weeks, and in some, at later intervals during the administration of the drug. The largest number of patients (17) had initial rates which were moderately increased (30 to 40 mm.); eleven showed extreme activity with a fall of 60 mm. or more, and the remaining eleven fell between these two extremes. Interestingly enough, eight patients with clinically active disease, had normal sedimentation rates.

Following two or more weeks of therapy eight patients showed no appreciable change. (A difference of 5 mm. or less was regarded as insignificant.) In eleven, a significant increase occurred, while in twenty-seven, a decrease resulted.

Blood eosinophile counts made during the administration of cortisone failed to show any characteristic trend.

Urinary 17-Ketosteroid and 11-oxysteroid determinations were made in seven patients. A decrease in the former occurred in five patients; the latter showed no constant effect. The results were not sufficiently impressive to warrant routine performance of these tests on all patients.

Blood sodium determinations were done before and at least after two weeks of therapy in thirty-two patients. An increase occurred in eighteen and a fall was noted in fourteen of these patients. Included in the former group were ten patients who developed facial or generalized edema of greater or less degree.

Blood potassium was increased in thirteen and decreased in the same number of patients after the administration of cortisone.

Glucose tolerance tests were performed before and in two to three weeks after the beginning of cortisone therapy in thirty-four cases. The test was repeated several months later in some of these cases. The results (q.v.) were sufficiently significant to justify further studies along this line.

Complications of Cortisone Therapy

Facial hirsutism of only a mild degree developed in seventeen patients. Four patients complained of thinning out of scalp hair.

Papular or *papulo-pustular eruptions* were observed in fifteen patients, and purpura in one. All of these patients received either estrogen or androgen concomitantly with the cortisone. Since the dermatitis improved following the withdrawal of the sex hormones, it was concluded that the latter, and not the cortisone, were responsible for the skin lesions. One patient developed an erythematous facial eruption with a typical butterfly distribution shortly after starting cortisone. This bore a striking clinical resemblance to lupus erythematosis, but cleared up after withdrawing the cortisone.

Facial edema with the characteristic moon-round configuration typical of Cushing's syndrome, developed in thirteen patients. *Generalized edema* of varying degrees, involving principally the lower extremities, developed in nineteen cases. In all, this edema cleared up promptly upon the resump-

tion of a low sodium diet and, in most cases, the administration of potassium citrate.

Hyperthyroidism developed in a woman, thirty-one years old, who had a colloid goiter before taking cortisone. The simultaneous administration of anti-thyroid substance (Tapazole) resulted in clinical improvement in the thyrotoxicosis and a lowering of the basal metabolic rate. The effect of the cortisone on the joint disease was very favorable.

Bleeding from the gastrointestinal tract (melena) was observed in one patient. Although the patient experienced certain digestive disturbances, complete gastrointestinal x-rays of the stomach, large and small intestine failed to reveal the cause for this bleeding. In this patient the bleeding time was prolonged to twelve minutes; the clotting time and platelet count were normal.

Nervous system symptoms were present in varying degree in nearly one half of the patients. Euphoria was present in twelve and simple "nervousness" in eight. A definite *psychosis* developed in four patients, in three of whom the severe depression was accompanied by fits of crying, irritability and suicidal impulses. Withdrawal of the drug resulted in eventual relief of the mental depression, and in one case it was possible to resume cortisone therapy in very small doses without return of psychotic symptoms.

Minor *elevations* in *blood pressure* were noted in eight patients. These involved only the systolic pressure. In no case was there more than a thirty mm. rise in the pressure after cortisone therapy was started.

Glucose tolerance determinations were made in thirty-four patients both before and at least once after cortisone therapy had been administered for a minimum of two weeks. In four cases a determination was made after therapy only. In fourteen patients a definite decrease in tolerance was present *before* cortisone was started, although glycosuria was not found in any of these patients. Following the institution of therapy, eight of these fourteen patients showed an apparent improvement in tolerance, but in only one of these did it return to normal. In five, the reduction in tolerance persisted.

Following at least two weeks of cortisone therapy, seventeen patients showed *no change*. In one of these the tolerance was reduced three months later. Nine patients were found to have a reduction in sugar tolerance after two weeks of treatment, and in eight it was improved after this length of time. One of the latter group showed a reduction in tolerance two months later. Five patients, in all of whom the tolerance was reduced before starting treatment, showed a further reduction after at least two weeks of the drug.

Results of Therapy

The immediate effect of cortisone was favorable in all but two cases. In practically all patients this became apparent about the third day, although in several instances it was noticed sooner. In only two cases was there no change observed at any time during the course of treatment. Improvement noted was subjective as well as objective, with a loss of pain and stiffness as well as a reduction in size of the affected joints.

In addition to the changes in the local joint condition, there was early improvement in the general sense of well-being of the patient. As previously indicated, this amounted to a true euphoria in about twenty per cent of patients, but in most patients there was a feeling "as though a load had been lifted from them."

The long-term results of therapy are more difficult to evaluate. In the majority of patients, the initial improvement obtained persisted as long as the optimum dosage was continued and the parenteral route used. In a limited number it became necessary to increase the dosage in order to maintain the good effect. Oral cortisone was found to be slightly less effective than the injectable cortisone in all but a few cases. The frequency of its administration, i.e., every twelve hours, undoubtedly explains the apparent advantage noted of the oral over the parenteral route in the latter few cases.

The oral use of the injectable preparation when mixed with a suitable vehicle, was not found to be as effective as has been reported by others. Though more practical than the hypodermic route, it was found to be less effective than the oral tablets (Cortone).

Of the sixty-three patients treated, thirty-seven (59 per cent) were considered to have had a good result. In twenty-one cases (33 per cent) the results were regarded as no better than fair, while in five (8 per cent), cortisone therapy was considered a distinct failure. Two of the latter patients had advanced Marie Strümpel disease. In one of these, sufficient improvement resulted during the period of treatment with the injectable

preparation to enable the patient to walk a few steps with the aid of crutches. When oral cortisone was used, this improvement was lost. In a third patient, a psychosis developed with a moderate degree of depression, after four weeks of therapy. Because of the pre-existence of a psychopathic inferior personality in this patient the use of cortisone is now considered to have been ill advised. The remaining two patients who are regarded as failures of therapy had typical, advanced rheumatoid arthritis of the peripheral joints. The poor results of therapy in these cases are not explained.

The differentiation of "good" from "fair" results was not made by fixed or iron-clad criteria. Consideration was given not only to the local joint effects, but also to the degree of restoration of the patient to an active life. In practically all patients regarded as having achieved a good result, daily occupations were resumed or were carried on with a much greater degree of ease than formerly. While most of this group were considered to have only slight to moderately advanced disease, seven were classified as having very advanced arthritis.

In the remaining twenty-one cases, with only fair results, the improvement noted was most noticeable in the local joint conditions. Pain and soreness were at least partially relieved, although the relief was less dramatic and usually less marked than that observed in the good results group. This was usually not sufficient to enable the patients to resume their former economic status, although in some instances, their failure was partially attributable to irreversible fibrous ankylosis and bony union in the joints. As would be expected, a larger percentage of the moderately advanced and severe cases fell into this group.

The end result of therapy was not directly related to the duration of the arthritis. While three of the five patients whose illness was under one year in duration had a good result from therapy, two-thirds of those cases having arthritis over ten years (totalling twenty-seven) were considered to have an equally favorable result.

The age of the patient appears to have some bearing on the end-result. Those falling in the first three decades of life (fifteen cases) had the highest percentage of good results (80 per cent). This group included the two patients with far advanced Marie Strümpel disease, in both of whom the result was regarded as poor. After the third decade, the incidence of good results became progressively smaller. The higher incidence of osteoarthritic changes in advancing years may explain some of this unsatisfactory result, since it is believed that the steroids have little or no effect on osteoarthritis. That this is not entirely true is illustrated by the improvement noted in a rheumatoid patient included in this series with a malum coxae senilis. Both types of arthritis were favorably affected in this case.

The influence of sex on the outcome of cortisone therapy is not significant. Two-thirds of the female patients had a good result while exactly half of the entire group of males were considered to have the same result.

Summary

Sixty-three patients were treated with cortisone for from three to fourteen months. The results were regarded as good in 59 per cent of the cases; fair in 23 per cent, and poor in 8 per cent.

Supplementary therapy in combination with cortisone has been of little help.

Side-effects as euphoria, psychosis, hirsutism, mooning of the face and edema of the extremities occurred in a limited number of patients. In all instances these complications disappeared after withdrawal of cortisone.

To obtain the most satisfactory results, it is essential for cortisone to be administered continuously and in adequate dosage.

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Fringe benefits in still another form are included in the current collective bargaining program of at least one union. This would call for companies to contribute monthly a fixed amount per employe for a special fund to establish *community centers* where workers and their families would receive the following services: (1) medical and dental diagnostic clinic, (2) legal aid for personal and family problems, (3) guidance from experienced social workers in connection with home problems and assistance in applying for various forms of government aid, (4) loan fund for emergencies, (5) consumer education in buying practices, food and diet planning, etc., (6) recreation and rehabilitation program including play and camp facilities for children in crowded areas and community recreation for old persons.—*Research Council for Economic Security,* August, 1951.

The Probability that Increased Secretion of Oxysteroids Does Not Fully Explain Improvement in Certain Systemic Diseases During Pregnancy

By William Q. Wolfson, M.D., William D. Robinson, M.D., and Ivan F. Duff, M.D.
Ann Arbor, Michigan

PREGNANCY and hepatitis regularly induce remissions in rheumatoid arthritis, intermittent hydrarthosis, primary fibrositis and migraine. More irregularly, significant improvement or complete remission may occur in psoriasis, myasthenia gravis, and allergic disorders such as bronchial asthma and hay fever during pregnancy and hepatitis. Hench clearly recognized the great theoretical importance of these remissions some years ago and discussed their possible mechanism in a series of interesting scholarly reviews.[5,6,7]

Hench points out that there is a marked similarity between the group of diseases which improve during pregnancy and those which improve during hepatitis. This suggests a single common underlying therapeutic factor. Since pregnancy is an altered endocrine state, the common factor may be a hormone. Since hepatitis may produce remissions either in men or women, the common endocrine therapeutic factor is likely to be a hormone which plays an important physiological role in both sexes rather than a female sex hormone, as might be suspected from a consideration of only pregnancy-induced remissions. When it was discovered that increased amounts of 11, 17-oxysteroids, such as cortisone, could control all of the diseases known to improve during pregnancy and hepatitis (excepting only migraine, which has as yet received insufficient study), it was tempting to believe that the important hormone responsible for remissions during pregnancy and hepatitis had at last been discovered. Certain reviewers have incorrectly attributed to Hench the hypothesis that remissions during pregnancy and hepatitis were due to increased amounts of 11, 17-oxysteroids.[9] In fact, Hench merely placed his findings in an interesting and tempting juxtaposition by discussing the above data in one issue of the Mayo Clinic "Proceedings" and by then presenting observations which he and his associates had made on the effect of ACTH and cortisone on rheumatoid arthritis in the next following issue of the same journal.[7,8] Neither Hench nor his associates have ever advanced a formal claim that increased amounts of 11, 17-oxysteroids are responsible for remissions of rheumatoid arthritis during pregnancy and hepatitis.

The present study was undertaken in an attempt to discover whether increased 11, 17-oxysteroids were, in fact, responsible for all of the anti-allergic effects of pregnancy. An attempt has been made to see whether ACTH and cortisone, given in high dosages for a prolonged period, will alter a physiological human hypersensitivity which is regularly abolished by pregnancy.

Dermal hypersensitivity to human colostrum is physiological in the non-pregnant human adult. Intradermal injections of small amounts (.05 ml. of standard material) produce an immediate type of wheal and flare response in non-pregnant subjects within thirty minutes. This physiological hypersensitivity to human colostrum regularly disappears early in pregnancy and reappears after pregnancy is completed. The disappearance of dermal hypersensitivity to colostrum during pregnancy forms the basis of the Falls-Freda pregnancy test.[4] This test has not achieved wide acceptance because it lacks the absolute accuracy demanded of an ideal pregnancy test. Nevertheless, it is clear that the disappearance of dermal hypersensitivity to colostrum during pregnancy is a biological phenomenon with an order of reproducibility of well over 80 per cent. We have attempted to see whether ACTH or cortisone would produce a suppression of dermal hypersensitivity to human colostrum resembling that induced by pregnancy.

Methods and Subjects

The human colostrum used in the present study was fresh material prepared and standardized by the Sherman Laboratories. It was kept under continuous refrigeration during the study. This mate-

From the Rackham Arthritis Research Unit, University of Michigan, Ann Arbor. These observations were presented in abstract at the 33rd annual meeting of the Association for the Study of Internal Secretions, Atlantic City, June 7-9, 1951.

The Rackham Arthritis Research Unit is supported by a grant from the Horace H. Rackham School of Graduate Studies, University of Michigan.

These studies were aided by grants from the Michigan Chapter of the Arthritis and Rheumatism Foundation and from the National Institutes of Health, United States Public Health Service.

rial was identical with that distributed commercially, but, as a check, tests with commercial material from another lot were also carried out in two subjects. The results were identical with those obtained with the experimental material. A simultaneous control intradermal test with the diluent used in the colostrum solution was carried out in each subject.

TABLE I. FAILURE OF ACTH AND CORTISONE TO ALTER THE PHYSIOLOGICAL SKIN HYPERSENSITIVITY OF NON-PREGNANT HUMAN ADULTS TO HUMAN COLOSTRUM (Falls-Freda Pregnancy Test)

SUBJECT	SEX	AGE	DIAGNOSIS	DOSAGE mgm/day	TEST RESPONSE
Subjects Receiving Long-Acting ACTH*					
T. Bo.	F	75	Chronic chorioretinitis	80	Non-pregnant
C. Mi.	M	44	Rheumatoid arthritis	10	Non-pregnant
O. Cr.	F	39	Malignant exophthalmos	200	Non-pregnant
B. Da.	M	38	Acute optic neuritis, rheumatoid spondylitis	150	Non-pregnant
M. Ge.	M	52	Chronic hepatitis, gout, psoriasis	80	Non-pregnant
M. Ma.	F	11	Juvenile rheumatoid arthritis	80	Non-pregnant
G. Gi.	M	54	Lymphatic leukemia	100	Non-pregnant
W. Ba.	F	23	Normal Adult	40	Non-pregnant
E. Fr.	F	51	Chronic chorioretinitis	200	Non-pregnant
Subjects Receiving Intramuscular Cortisone					
C. Ta.	M	45	Rheumatoid arthritis	100	Non-pregnant
R. Ev.	M	39	Rheumatoid arthritis	100	Non-pregnant
A. He.	F	68	Chronic chorioretinitis	300	Non-pregnant

*All subjects except Mrs. T. Bo. received Adactar, a suspension of aluminum phosphate adsorbed ACTH, Armour, in polyvinyl-pyrrolidone. Mrs. T. Bo. received Acthar-in-oil (Adactar-0-40), a suspension of ACTH, Armour, in peanut oil with 3% aluminum monostearate.

Table I summarizes essential data on the subjects studied. Nine patients were studied during administration of long-acting ACTH preparations, and three patients were studied during administration of cortisone. In general, the hormone dosages shown in Table I were sufficient to produce symptomatic or objective improvement in the primary disorders for which treatment had been prescribed.

Results

Table I summarizes the results of the study. Neither ACTH nor cortisone in rather liberal dosage altered any subject's non-pregnant wheal-flare reaction to the intradermal injection of colostrum. No subject showed a significant wheal-flare response to the control injection of colostrum diluent.

Discussion

Two possible interpretations of the present data are possible. The disappearance of dermal hypersensitivity to colostrum during pregnancy may depend upon specific factors other than those responsible for the relief of other hypersensitivities during pregnancy. If this is the case, the failure of ACTH and cortisone to reproduce the effects of pregnancy is interesting, but has no general significance for the understanding of remissions in systemic disorders during pregnancy.

The alternative possibility is that disappearance of hypersensitivity to colostrum during pregnancy results from the same changes responsible for remissions in systemic diseases during pregnancy. The positive colostrum reaction, in fact, disappears at about the time when relief of rheumatoid arthritis and migraine most commonly are first seen. If this second possible interpretation is correct, the failure of ACTH and cortisone to reproduce the effect of pregnancy means that potent factors other than the 11, 17-oxysteroids are involved in the relief of hypersensitivities during pregnancy.

It is not the purpose of this discussion to deny that increased secretion of 11, 17-oxysteroids may be important in remissions of sytemic diseases during either pregnancy or hepatitis. It has long been known that, if women with Addison's disease become pregnant, their requirements for adrenal cortical extract diminish during the course of pregnancy.[10] Jailer and Knowlton have presented evidence indicating that the placenta can produce eosinopenic steroids in response to ACTH, a datum strongly suggesting secretion of 11-oxysteroids or

11, 17-oxysteroids by the placenta during pregnancy.[10] A number of investigators[10,11,12] have isolated appreciable amounts of ACTH from human placenta although it is not yet clear whether this ACTH is of pituitary or placental origin. The urinary excretion of corticoid-like substances is increased during pregnancy, whether these are measured as formaldehydogenic lipids, or glycogenic lipids[13,14] The eosinophil count falls during pregnancy from an average of 224 per cu. mm. to an average level of 97 per cu. mm.[2] If not evidence for adrenocortical hyperactivity, the alterations in carbohydrate metabolism during pregnancy and the hemodilution which underlies the so-called "physiological anemia of pregnancy" are at least consistent with increased adrenal function. Thus, on the whole, there is considerable evidence of increased adrenal cortical function during pregnancy. A possible increase in adrenal cortical function during hepatitis has been observed by a number of investigators, and is most prominent in the interesting female patients with chronic hepatitis studied by Bongiovanni and Eisenmenger.[1] These young women presented a degree of hypercorticoidism reminiscent of Cushing's syndrome.

Despite this evidence of increased 11, 17-oxysteroid secretion during pregnancy and possibly during hepatitis, there are a number of objections to considering this endocrine change as the sole important factor responsible for remissions of rheumatoid arthritis, intermittent hydrarthrosis, primary fibrositis, migraine, psoriasis, myasthenia gravis, bronchial asthma, and other allergic disorders during pregnancy or hepatitis. In most patients, remissions in bronchial asthma can be maintained by considerably less ACTH or cortisone than is required to maintain remission in rheumatoid arthritis. Thus, if remissions of rheumatoid arthritis during pregnancy were due only to an increased supply of cortisone-like 11, 17-oxysteroids, one would expect to find that the amount of extra 11, 17-oxysteroid was sufficient to cause remission in bronchial asthma even more frequently than in rheumatoid arthritis. Actually, pregnancy induces remission in rheumatoid arthritis much more regularly than in bronchial asthma.[3] With ACTH or cortisone, it is occasionally noted that the patient's rheumatoid arthritis can be controlled only by giving sufficient hormonal therapy to cause disturbing or alarming symptoms of hypercorticoidism. This does not occur in remissions induced by pregnancy. Finally, pregnancy does not regularly exert a beneficial influence on every disease which improves with ACTH or cortisone. In particular, disseminated lupus erythematosus and berylliosis often become much more severe during pregnancy.

From the foregoing brief review, it would appear probable that although there is good evidence of increased secretion of 11, 17-oxysteroids during pregnancy, this hormonal change is not a sufficient explanation of the salutory effect of pregnancy on certain systemic diseases. The experimental data of the present report are consistent with this opinion. Parallel studies of the effect of hepatitis on the colostrum reaction are being undertaken to clarify the question of the possible specificity of its disappearance during pregnancy.

Summary

The present study is an attempt to discover whether increased secretion of 11, 17-oxysteroids during pregnancy is a sufficient explanation for the remissions in certain allergic and other systemic disorders which may occur during pregnancy.

The normal non-pregnant human adult responds to the intradermal injection of human colostrum with an immediate hypersensitivity, wheal-flare type of reaction. This physiological hypersensitivity to colostrum regularly disappears during early pregnancy. It is not altered by large amounts of ACTH or cortisone. Thus, the response to colostrum is a physiological hypersensitivity which is regularly abolished by pregnancy but which is not altered by ACTH or cortisone.

There are two possible explanations of this finding:

1. The disappearance of hypersensitivity to colostrum in early pregnancy may be mediated by mechanisms entirely different from those responsible for the relief of hypersensitivities, rheumatoid arthritis, and migraine during pregnancy.

2. The disappearance of hypersensitivity to colostrum in pregnancy may result from the same physiological alterations responsible for the beneficial effect of pregnancy on systemic illnesses. If the latter explanation is correct, the present observations imply that increased secretion of 11, 17-oxysteroids provides only a partial explanation of the beneficial effects of pregnancy on disease.

A brief review of recent data indicates that, although there is good evidence of increased 11, 17-oxysteroid secretion during pregnancy, there

are also important discrepancies between the characteristics of pregnancy-induced remissions and those induced by ACTH or cortisone. On the whole, the weight of evidence appears to indicate that increased 11, 17-oxysteroid secretion does not suffice to explain the beneficial effect of pregnancy on certain systemic disorders. The experimental observations of the present study are consistent with this view.

Acknowledgment

Generous supplies of standardized human colostrum were made available for this study through the co-operation of the Sherman Laboratories, Detroit. The ACTH used in the preparation of Adactar was made available by the Armour Laboratories. The Upjohn Company, and Merck and Company kindly supplied a portion of the cortisone used.

Patients with ophthalmological disorders were studied through the co-operation of Dr. F. Bruce Fralick and Dr. Harold Falls of the Department of Ophthalmology, University of Michigan School of Medicine.

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Errors and Pitfalls in the Diagnosis and Treatment of Rheumatic Diseases

By Ezra Lipkin, M.D.
Detroit, Michigan

FROM THE vantage point of a quarter of a century of experience with rheumatic diseases, it occurred to us that it might not be amiss to review some of the errors which are apt to be committed by physicians who come in contact with such diseases only at infrequent intervals, and are, therefore, less alert to the finer points in differential diagnosis than the rheumatologist. To be sure, rheumatic diseases offer no greater difficulty in differential diagnosis than, say, diseases of the chest, but, whereas in the latter category one is almost sure to employ a careful history and examination, x-rays, laboratory data, et cetera, to arrive at a definite diagnosis, one is more apt to relegate diseases of the joints to a general category of "rheumatism" and treat them more or less alike. Nothing can do the arthritic patient greater harm than such form of relative neglect. We shall categorize such errors as "errors of omission," as careful study can, in most instances, surely lead to an exact diagnosis and appropriate treatment.

Rheumatoid and Osteoarthritis

Since the great majority of rheumatic diseases fall into one or the other of the above two categories, it behooves us, at the very outset, to differentiate between them, as their etiology, symptomatology, prognosis, and treatment is so different that we must regard them as two distinct disease entities. Rheumatoid arthritis affects people of all ages, more frequently the younger age group; osteoarthritis, the middle-aged and older groups. The sex incidence in either group is about one-third male, and two-thirds female. The joint involvement in rheumatoid arthritis is multiple, in osteoarthritis, single or few. In rheumatoid arthritis of the hands, there are spindle-shaped deformities of the proximal interphalangeal joints, whereas in osteoarthritis, it is

Dr. Lipkin is Senior Attending Physician in Arthritis at the North End Clinic, Detroit, Michigan.

the distal joints that are affected, with the formation of the characteristic Heberden's nodes. Rheumatoid arthritis may result in ankylosis—fibrous or bony; in osteoarthritis, that is never the case. The x-rays of both diseases are characteristic: in the rheumatoid type the joint space is irregular, narrowed, and, in advanced cases, obliterated; osteoporosis may be in evidence, due to atrophy of disuse. In osteoarthritis, there are typical spur formations, and the joint space is usually normal. In active rheumatoid arthritis the sedimentation rate is increased; in osteoarthritis, it is normal.

As for treatment: in rheumatoid arthritis excessive immobilization of the joints may lead to ankylosis; a fine balance must, therefore, be established between rest and activity. In osteoarthritis, rest is desirable, and prolonged exercise usually leads to a recurrence of the symptoms.

Specific therapy is lacking in either type of arthritis. In the rheumatoid type, typhoid vaccine, gold and, of late, cortisone and ACTH have been used with varying degrees of success. The beneficial effects of typhoid vaccine are transient; the improvement following gold therapy is slow in onset, though the remissions may be prolonged, while not infrequently gold reactions make the use of that drug unsafe. Cortisone and ACTH, on the other hand, give spectacular results with apparent reversal of the pathologic process, short of ankylosis, but the improvement is short-lived, and a cessation of the medication brings back the old familiar symptoms with increasing emphasis. It becomes a matter of continuous therapy, which is neither practical nor adapted to the average pocketbook. Nor are cortisone and ACTH devoid of undesirable side-effects. It appears, therefore, that, at this time, gold is the drug of choice, as it produces longer remissions than any other medication at our command.

The use of the above medications in osteoarthritis is useless, although some investigators have reported favorable results in osteoarthritis of the hip with cortisone.[2] Otherwise, the treatment is directed toward rest and support of the affected joint, improvement of the circulation through physiotherapy, reduction of weight, the use of analgesics, etc.

Spondylitis: Rheumatoid and Osteoarthritic

Rheumatoid spondylitis is an affliction of the younger age group. It begins in the sacroiliac region and ascends along the spinal column, producing stiffness and eventual ossification of the ligaments of the spine, with fusion of the vertebrae. It is a disabling disease, and, without treatment, subjects the individual to a lifetime of invalidism. Fortunately, the condition responds to x-ray therapy, and beneficial results can be expected, as far as pain and increases mobility of the spine are concerned.

Osteoarthritis of the spine is found in middle-aged people even without the symptom of backache. It is discovered on incidental x-ray examination of other organs, such as the kidneys or gastrointestinal tract. Spurs do not always produce symptoms. However, they can, by pressure on the nervous and ligamentous structures, produce referred pain to the chest, abdomen or groin, and thus confuse the condition with visceral disease, as cholecystitis, appendicits, hernia, etc. Several such patients have thus come to our attention, pre- and postoperatively. With appropriate treatment, namely, procaine injection of the so-called "trigger points," the referred pain clears up.

Rheumatoid Arthritis and Rheumatic Fever

There should be little difficulty in differentiating these two conditions. In rheumatic fever, there is evidence of acute infection, such as fever, rapid pulse, etc. The joints are red, swollen, and exquisitely tender. The involvement of the joints is usually alternating in character rather than simultaneous, one joint clearing up completely before the other becomes involved. In rheumatoid arthritis, there is no complete recovery of the affected joint. There is at all times residual pain, swelling, and tenderness on pressure, even after the acute process has subsided. In rheumatic fever, there is involvement of the heart in about 40 per cent of cases—in fact, the cardiac picture assumes a predominating role in the disease. Recent investigators[1] have also found cardiac involvement in some cases of rheumatoid arthritis, but the emphasis is primarily on the joints. The sedimentation rate is elevated in both diseases, and diminishes as the activity of the disease process abates. The use of salicylates in rheumatic fever is specific, while in rheumatoid arthritis it has but a temporary analgesic effect. The use of cortisone and ACTH in rheumatic fever has a most beneficial effect upon the heart, and may carry the patient through a stormy episode, thus proving itself in effect not only ameliorating, but life saving as well.

The chief differentiating point between rheumatoid arthritis and rheumatic fever is that the former is insidious in onset and chronic in nature, while the latter has a sudden onset and has the characteristics of an acute disease.

Rheumatoid Arthritis and Gout

The differentiation between rheumatoid arthritis and gout is frequently overlooked, although awareness of the existence of the latter condition should make its presence discoverable without too great effort. Both diseases are chronic, though gout presents intermittently acute episodes which are attended by severe pain in the affected joint—frequently the great toe—which clear up without residue only to reoccur at some future time. The intermittent character of the disease should throw suspicion at the nature of the involvement and the diagnosis clinched by a blood uric acid determination and x-rays, which show typical punched-out appearances in the joint, due to destruction by uric acid deposits. Gouty tophi may be found in the ear lobes and in other subcutaneous areas. The urine sometimes shows red blood cells, due to kidney damage during excretion of uric acid crystals. Gouty deposits at the distal joints are differentiated from Heberden's nodes in that the latter are bony outgrowths, and immovable, while, the former are subcutaneous deposits and freely movable. The treatment of gout consists in the time-honored use of colchicine along with a purine-free diet. Recently, there has been introduced a new drug in the treatment of gout, benemid,[3] which claims greater therapeutic effects for sufferers from this ancient disease than colchicine. The sedimentation rate in rheumatoid arthritis and gout is increased in both. To eliminate a possible error in diagnosis, it is advisible to do routine x-rays and blood uric acid determination where gout is suspected.

Arthritis: Specific and Non-specific

While rheumatoid arthritis (as well as osteo-arthritis) are, at this stage of our knowledge, considered non-specific in etiology, a number of specific infections of the joints exist which merit our attention, particularly gonorrheal and tuberculous arthritis and the so-called Charcot joint, which is syphilic in origin; also septic joints, the result of ordinary infection with streptococcus and staphylococcus organisms. In these specific arthritides, the history is most important, as they are usually secondary to an original focus elsewhere. Gonorrhea has its origin in the urethra, may invade the prostate in the male patient, and secondarily the joints. The gonococcus may be isolated from the prostate, or cervix, and the diagnosis thus confirmed. This type of arthritis responds favorably to penicillin. The joint involvement is usually single, but may be multiple.

Tuberculous arthritis is also secondary to involvement of other structures—the lungs, the lymph nodes, etc. Here the diseased joint heals by ankylosis, and the treatment should be directed to promote that end.

Charcot joint is one of the late manifestations of cerebrospinal syphilis, and usually involves the knee, which is markedly enlarged and crepitant, but painless.

A septic joint partakes of the characteristics of infection elsewhere. It is attended by the cardinal signs of inflammation and responds to surgical drainage and the antibiotics.

Low Backache

This most common of all "rheumatic" afflictions may be due to a multitude of causes: simple back strain—lumbar and sacroiliac—constipation, cystitis, prostatitis, cervicitis, and osteoarthritis. The treatment naturally resolves itself to a discovery of the cause and its correction, whether by appropriate support, laxatives, prostatic massage, electrocautery or short-wave therapy. Hence, every patient with a low backache should have the advantage of a history and examination, including x-rays. By symptomatic treatment alone, we may overlook the occasional presence of a malignancy of the spine, discoverable by x-rays. The difference in prognosis is quite apparent.

Low backache with referred sciatic pain offers a challenging diagnostic problem, as one must differentiate between sciatic neuralgia, secondary to lumbosacral or sacroiliac conditions, and primary sciatic neuritis, due to diabetes, syphilis, or exposure. Not infrequently referred pain down the leg will disappear following procaine injection of a "trigger point" in the sacroiliac or lumbosacral region. Primary sciatic neuritis will not respond to such treatment, although direct injection of the sciatic nerve will often produce beneficial results.

Of late, the profession has become conscious of the existence of another cause for sciatic neuritis, namely, protrusion of an intervertebral disc, with pressure upon the sciatic plexus as it emerges

through the intervertebral foramina. The diagnosis is determined by lipiodol x-rays of the spine. The symptomatology consists of low backache, pain along the sciatic nerve aggravated by coughing or sneezing, pain on straight leg raising, numbness in the affected leg, and diminished ankle reflex. There is a history of trauma and of remissions and exacerbations of the symptoms in about 75 per cent of the cases.

If, after a trial of conservative treatment with heat and support, no results are obtained, surgery has to be resorted to. In our series of cases, the surgical results have been most gratifying.

Of the patients that consult us with single joint afflictions, none is more common than the sufferer from a painful shoulder. Here, too, the causes are multiple, and a careful differentiation must be made between visceral and parietal disease. Angina pectoris may produce referred pain to the arm, but its duration is brief, and lasts only during the anginal attack. The origin of a painful shoulder may be in the shoulder joint or bursa, or may be referred from an osteoarthritic cervical spine. The majority of painful shoulders, however, are periarthritic in origin, and are classified under bursitis. The x-rays at times reveal calcified formations in the bursa or tendon, and the diagnosis is made of calcified bursitis or peritendinitis. This condition responds most satisfactorily to x-ray therapy. The non-calcified periarthritides are helped by physiotherapy and massage with graduated exercise. Should they fail to respond to these measures, resort may be had to brachial block with one per cent procaine.

Referred shoulder-pain and arm-pain from osteoarthritis of the cervical spine is treated by Sayer's traction of the neck, in addition to heat and massage. Local procaine infiltration in the tender areas of the cervical spine is also helpful.

Brachial Block

We shall not enter into the technique of brachial block. This has been described elsewhere in the literature. Suffice it to say, that in the hands of an experienced operator, it is a harmless procedure, and at times productive of spectacular results. Its greatest hazard lies in the inadvertent puncture of the dome of the pleura and the infiltration of air into the pleural cavity. Such accidental puncture causes pain and dyspnea, but the pain is relieved by the use of codeine and heat, and the air becomes absorbed without ultimate ill effects. In our hands, brachial block has been a most useful procedure for the relief of some of the most stubborn cases of painful shoulder that resisted many other forms of treatment.

Summary and Conclusion

In this review, we have tried to cover some of the highlights of twenty-five years experience with rheumatic disease, laying particular stress upon errors from which we, or any other conscientious physician, have not been immune. We have stressed the differential diagnosis between rheumatoid and osteoarthritis generally, rheumatoid and osteoarthritic spondylitis, rheumatoid arthritis and rheumatic fever, rheumatoid arthritis and gout, specific and non-specific arthritis, the various types of backache and sciatica, and painful shoulder. We have stressed some of the highlights in the treatment of the various rheumatic diseases, and tried to emphasize the therapeutic agents which, in our experience, have been found most efficacious. No doubt, we have presented but a sketchy outline of the subject, and have omitted many pertinent details worthy of consideration. However, if we have succeeded in clarifying the subject by introducing a methodical consideration of the possible errors in differential diagnosis and treatment of this complex group of diseases, we shall feel amply rewarded in that our modest effort will not have been in vain.

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4836 Michigan Avenue
Detroit 10, Michigan

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TAX EXEMPTION FOR RETIREMENT INSURANCE PREMIUMS

(Continued from Page 984)

organized groups to which they belong. This bill, they say, "will ultimately be of benefit to the country (by encouraging) the youth to enter the professions and also to become self-employers. The benefits that have been accorded to employes of corporations under the corporaate retirement plans tend to do the reverse by making more attractive employment with large corporations."

The Treatment of Still's Disease with Cortisone and Gold

By John D. Chase, M.D., and
John M. Wilkinson, M.D.
Detroit, Michigan

SINCE THE DESCRIPTIONS by Cornile,[4] in 1864, and by Still,[11] in 1897, of what is now known as Still's disease, the treatment of rheumatoid arthritis has been in constant flux. The repeated appearance of new forms of therapy has been a reflection of dissatisfaction with the results obtained from existing treatment. Among the regimens which have been tried are rest,[8] Kenny treatment,[9] salicylates,[5] cobra venom,[7] vitamin D, protein shock,[3] penicillin, sulfa drugs,[1] progtigmine,[10] and gold.[3] Of these, gold has continued to display the most consistent results.

A new era began in 1948 with the introduction of cortisone and ACTH by Hench et al.[6] These agents produced a much more rapid and dramatic remission than any previous regimen. Apart from expense, two serious drawabcks soon became evident, namely, the prompt relapse following withdrawal and the tendency to toxic manifestations with a prolonged course of either ACTH or cortisone.

A study of the combined effects of cortisone and gold in rheumatoid arthritis is being undertaken in order to determine whether or not maintenance on gold will prevent the relapse that customarily follows withdrawal of cortisone. The following case of Still's disease is reported to illustrate the results of this method of treatment.

Case Report

J. G., a fourteen-year-old white boy, was well until the age of seven, when pain developed in the left knee, accompanied by fever and malaise. There was no redness or edema of the joint at this time. He was seen by a pediatrician, who made a diagnosis of rheumatic fever. Treatment was instituted with salicylates and followed by three months of bed rest. After this episode, the patient returned to complete activity without any evidence of joint involvement except a slight limp of the left leg. At the age of eleven, the patient noted 35-pound weight loss, malaise, anorexia, and a persistent low grade fever. Both knees soon became reddened and edematous, with marked pain on active and passive motion; later, similar changes were noted in the left wrist. The patient was again treated with salicylates and placed in bed for six months. Since no improvement occurred, the patient was transferred to a hospital, where the right wrist became painful and swollen. During a hospitalization period for four months, the patient's wrist and knees were immobilized in casts. Upon transfer to a children's convalescent home, where he remained for two months, he was reported to be asymptomatic and active.

Twenty months prior to this admission, insidious malaise, weight loss, anorexia, a low grade fever, and tachycardia reappeared, and were followed by a recrudescence of joint symptoms. The arthritis was progressive in severity and gradually became generalized to involve the wrists, elbows, right shoulder, hip, knees and ankles. During the four months prior to admission, the patient was completely confined to his chair and bed. Two months before admission, a severe exacerbation of all symptoms occurred, following an upper respiratory infection. A tonic seizure without clonus led to admission to Receiving Hospital.

Physical examination revealed a chronically ill boy, who appeared to be approximately six years younger than the stated age of fourteen. Temperature was 99.6°, pulse 124, respirations 24, blood pressure 104/72, weight 50 pounds. The skin and mucous membranes were pale, but no petechiae were evident. Hair type and distribution were of the pre-pubertal type. The neck presented no masses, but was limited in flexion and rotation, due to pain. Pupillary reflexes and the fundi were normal. Poor dental hygiene was evident. The tonsils were moderately enlarged, but there was no exudate. Small, 1 to 2 centimeter, non-tender, freely movable lypmh nodes were palpable in the submaxillary, epitrochlear, axillary, and inguinal regions. The thorax was thin walled, emaciated and symmetrical. The heart was enlarged 1 cm. outside the midclavicular line in the fourth left interspace. Soft aortic and apical systolic murmurs were present. There was no evidence of decompensation. The abdomen was normal. The spleen was not palpable on admission. All extremities presented evidence of muscular wasting and generalized joint changes. The fingers showed minimal fusiform swelling, with no evidence of acute arthritis. Both wrists, both elbows, right shoulder, both knees, and both ankles showed increased heat with effusion; these joints were tender to palpation and painful to passive motion. No active motions were attempted by the patient beyond those of absolute necessity.

Laboratory Findings.—Hemoglobin 8 gm., red blood count 3.46 million hematocrit 31.5 per cent, M. C. V. 91 cu. M., M. C. H. 23 mm. gm., M. C. H. C. 25 per cent, white blood count 10,400, 87 per cent neutrophils, 9 per cent lymphocytes, and 4 per cent monocytes. Sedimentation rate 45 mm./hour. Urine sp. gr. 1.015, albumin 0, sugar 0, and cells O. B. U. N. 7 mg. per cent, serum phosphatase 3.7 mg. per cent, calcium 8.7 mg. per cent,

From the Department of Medicine, Wayne University, and City of Detroit Receiving Hospital.
Supported by a grant from the Michigan Chapter of the Arthritis and Rheumatism Foundation.

alk. phosphatase 7.0 B. U., serology negative, blood sugar 88 mg. per cent. The spinal fluid was normal. Lymph node biopsy was reported as acute lymphadenitis. Repeated blood cultures and agglutinations were negative.

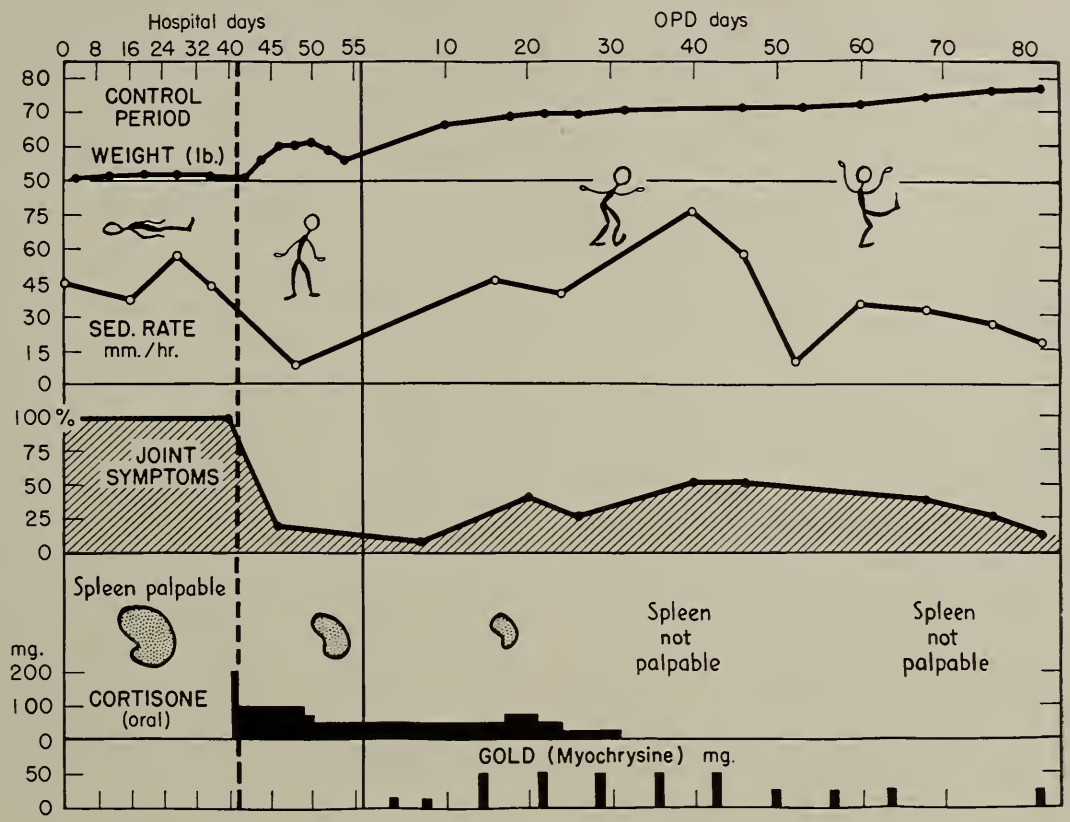


Fig. 1. Correlation of clinical progress and therapy of patient J. G., a fourteen-year-old boy with severe Still's disease.

The *in vitro* test for the lupus erythematosus phenomenon was absent. The Congo red test was negative.

The electrocardiogram on January 29, 1951, showed inversion of the T waves over the entire precordium without significant shift in the RS-T segment or prolongation of the Q-T interval. This was interpreted as nonspecific myocarditis. Subsequent curves showed return of the T waves over the left ventricle to an upright configuration. Complete x-ray studies disclosed the typical changes of rheumatoid arthritis in the hands, wrists, elbows, hips, and knees; the joint spaces of both hips were markedly narrowed with roughening of the acetabula.

Course Prior to Institution of Cortisone and Gold.— During a control period extending over the first forty days of hospitalization, symptomatic therapy failed to alter the progression of the disease. Splenomegaly developed under observation, and on February 21 the spleen was palpated 5 cm. below the costal margin. After transfusion of a total of 1000 ml. of whole blood, the RBC and Hb. showed a transient rise, followed by return to the admission level by February 28.

Course on cortisone and gold is represented graphically in Figure 1. Cortisone was instituted on March 10, 1951, with a dose of 200 mg. the first day, 100 mg. daily for the next 8 days, 50 mg. daily to April 18, 1951, then 25 mg. until April 25, 1951, when the last dose was given. On April 2, 1951, 10 mg. of gold sodium thiomalate (myochrisine) was given. Increasing dosage of gold was carried to a level of 50 mg. per week, then decreased to 25 mg. per week. Three days after onset of cortisone, the patient walked with help for the first time in five months. The alleviation of pain and stiffness was dramatic, and improvement of function continued under the combined use of cortisone and gold while the patient was ambulatory in the hospital. Following discharge to the out-patient department on combined therapy, he was able to use all joints to the functional limit imposed by anatomical changes. During a fifty-two -day period of observation since discontinuance of cortisone and maintenance of gold, there has been no return to the pre-treatment symptom level. There has been no pain in the knees, wrists or elbows, and the swelling about these joints is slowly subsiding.

Soon after institution of cortisone, there was a transient increase in weight from sodium and water retention, corrected by a spontaneous diuresis as the dose was decreased. During the next three months, there was a progressive gain, amounting to 50 per cent of the initial body weight, accompanied by increasing muscular development, but not by edema.

Discussion

In Still's disease, as in rheumatoid arthritis of the adult, the symptoms reflect the diffuseness of the pathological process. The anemia, adenitis, splenomegaly, cardiac and musculo-skeletal involvement in this patient contributed to the incapacitation. Therapeutic measures directed at the joints, therefore, can at best relieve the local discomfort and can scarcely be expected to exert any influence on the extra-articular manifestations of the disease. The introduction of cortisone has made the control of both the arthritis and diffuse systemic involvement possible.

In the evaluation of any therapeutic agent in Still's disease, it is necessary to bear in mind that the disease may take one of two forms:[2] the classical severe progressive variety, leading to incapacitating deformitics, and the relatively mild form, terminating without crippling residues. Our patient was classified into the first group because of a twenty-month history of progressive deforming arthritis prior to admission and a 40-day control period in the hospital, during which no improvement occurred on bed rest or symptomatic therapy. Therefore, the dramatic remission following cortisone and continuing after gold was attributable to therapy, rather than a spontaneous change in the natural course of the disease.

No definite conclusion can be reached from this single short-term result. It would appear, however, that this patient has maintained a major portion of the cortisone induced remission as a result of the gold therapy. An extended period of observation will be necessary in this and other patients, now under treatment, to draw a final conclusion.

Summary

A fourteen-year-old boy with severe Still's disease has been treated with combined cortisone and gold therapy. Fifty-two days following withdrawal of cortisone and continuation of gold, the patient has maintained a major portion of the cortisone induced remission.

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(Continued on Page 1066)

Studies on the Removal of Protein from Chondroitin Sulfate

By Stanley Levey, Ph.D.
Cleveland, Ohio
and
Sarah Sheinfeld, M.T.
Detroit, Michigan

CHONDROITIN SULFATE is one of the major constituents of cartilage. It is believed that *in vivo* this mucopolysaccharide is bound at least in part with the protein, collagen. On extracting the chondroitin sulfate from cartilage using alkali or certain inorganic salts, a portion of the collagen is converted to gelatin and an undetermined part of the chondroitin sulfate passes into solution bound to protein. This resulting product is the so-called chondromucoid.

In the course of a study in which it was desired to investigate the viscosity of solutions of chondroitin sulfate which were free of protein, repeated deproteinizations of the chondroitin sulfate were made. The result of this work is reported below.

Experimental

Chondroitin sulfate was prepared according to the method of Meyer and Smyth,[8] using acetone-dried, ground, cartilagenous rings obtained from the trachea of beef as the starting product. This isolation procedure consisted, in general, of extracting the ground tissue with an aqueous solution of $CaCl_2$, deproteinizing the extract with a mixture of amyl alcohol and chloroform and finally isolating the mucopolysaccharide by precipitation with alcohol and then with acetic acid. The step involving Lloyd's reagent which Meyer and Smyth used was not employed since in preliminary work it was found that the chondroitin sulfate isolated when the Lloyd's reagent was used contained, by spectrographic analysis, large amounts of aluminum and silicon and smaller

This work was supported by a grant from the Michigan Chapter of the Arthritis and Rheumatism Foundation.

From the Department of Physiological Chemistry, Wayne University College of Medicine, Detroit.
Dr. Levey is associated with the Department of Surgical Research, University Hospitals of Cleveland, Cleveland, Ohio.

TABLE I. ANALYSIS OF THE CHONDROITIN SULFATES OBTAINED FROM BEEF CARTILAGE
(Values are expressed on a moisture-free basis)

	Prep. 1	Prep. 2	Prep. 3	Prep. 4
Ash (as sulfate)*	8.14	8.37%	7.62	11.93
Nitrogen	5.98	6.31%	6.29	5.43
Sulfur‡	3.60	4.0%	3.57	4.25
Hexosamine (as glucosamine)	23.04	22.14%	—	24.98
Hexuronic acid (as glucuronic acid)	25.68	27.32%	25.49	24.12
Proteins†	28.85	25.92%	—	26.07

*Spectrographic analysis showed the presence of Ca, Sr, Fe, and Mg.
‡Determined by the Clark Microanalytical Laboratory, Urbana, Ill.
†The mucoproteins contained no detectable phosphorus.

amounts of titanium. These elements are present in Lloyd's reagent which apparently cannot be separated easily from the viscid solutions containing the chondroitin sulfate and chondromucoid. The original procedure[8] called for three deproteinizations of the cartilage extracts with a mixture of amyl alcohol and chloroform. Preparation 1 was obtained in this manner. Preparation 2 consisted of an aliquot of Preparation 1 which had been subjected to the deproteinization procedure 20 times more, and Preparation 3 was a portion of Preparation 2 which had been further treated numerous times with the amyl alcohol-chloroform mixture. Preparation 4 was obtained by extracting the residual cartilage used for Preparation 1 with $CaCl_2$ at 70° according to the procedure of Partridge.[6]

Moisture content of the mucoproteins was determined by loss of weight at 90°. The ash content was estimated using the crucible method of Pregl, after converting all metals to sulfates.[7] In addition, the following determinations were made on the isolated mucopolysaccharides: nitrogen,[5] hexosamine,[2] hexuronic acid,[1] protein,[4] and phosphorus.[3]

A summary of the analytical data of Preparations 1 to 4 is given in Table I. Preparation 1 still contained 28.8 per cent protein after treatments which were designed to free it of protein and even further deproteinizations did not greatly diminish the protein content (Preparation 2 contained 25.9 per cent protein). Because of the small amount of Preparation 3 available, the hexosamine and protein determinations could not be carried out, although the nitrogen content was still elevated above the theoretical for chondroitin sulfuric acid (2.9 per cent N). Preparation 4, which was isolated from cartilage by extraction at an elevated temperature, yielded analytical data of the same magnitude as the previously isolated chondroitin sulfates.

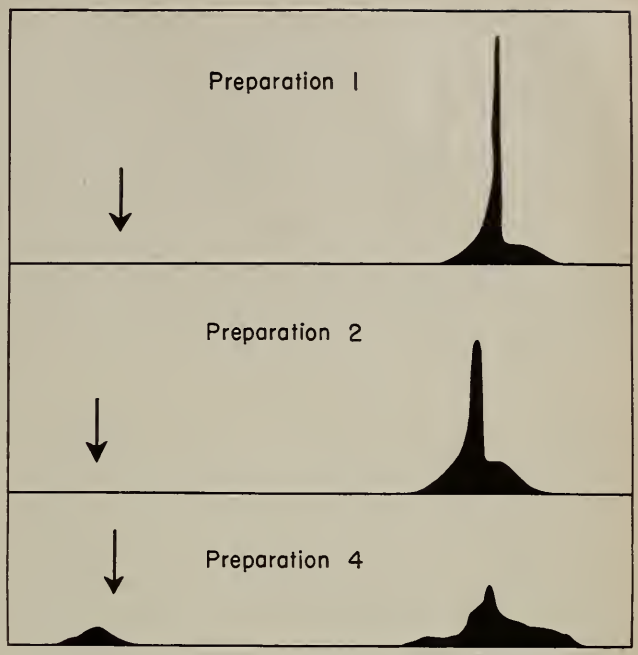


Fig. 1. Ascending electrophoretic patterns of the chondroitin sulfates obtained from the trachea of beef, veronal buffer pH 8.6, 0.1 ionic strength. The arrow indicates the starting boundary.

TABLE II. ELECTROPHORETIC MOBILITIES OF THE VARIOUS CHONDROITIN SULFATES ISOLATED
(Veronal buffer pH8.6; ionic strength 0.1)

Preparation 1	1st peak	1.24×10^{-4}	u/sec/volt/cm.
	2nd peak	1.31×10^{-4}	u/sec/volt/cm.
Preparation 2	1st peak	1.21×10^{-4}	u/sec/volt/cm.
	2nd peak	1.31×10^{-4}	u/sec/volt/cm.
Preparation 4	1st peak	0.93×10^{-4}	u/sec/volt/cm.
	2nd peak	1.14×10^{-4}	u/sec/volt/cm.
	3rd peak	1.24×10^{-4}	u/sec/volt/cm.
	4th peak	1.32×10^{-4}	u/sec/volt/cm.

By spectrographic analysis, large amounts of calcium, smaller amounts of strontium, and traces of magnesium and iron were found in Preparation 1. The strontium was believed to be a contaminant in the $CaCl_2$ used in the extraction of the cartilage.

Electrophoretic examination of the various preparations using a veronal buffer pH 8.6, ionic strength 0.1 revealed that the same two components were present in Preparations 1 and 2 (Fig. 1). The electrophoretic mobilities of corresponding components are identical (Table II). Preparation 4 showed the same boundaries as the other two products plus two slower moving components. The elevated temperature used in obtaining Preparation 4 appeared to leech out additional protein fractions from the powdered cartilage.

The approximate amino acid content of Preparation 1 using filter paper chromatography showed the presence of the following amino acids, expressed as per cent of the chondromucoid: aspartic acid, 2 per cent; glutamic acid, 1.5 per cent; glycine, 2-2.5 per cent; alanine, 2 per cent; serine, 0.5 per cent; proline, 0.7-1.0 per cent; hydroxyproline, 0.7-1.0 per cent; valine, 0.3 per cent; isoleucine and leucine, 0.2 per cent; cystine, 0.2 per cent; and threonine, 0.15 per cent.

Discussion

From the data presented, it is evident that the chondroitin sulfate which is extracted from cartilage by aqueous $CaCl_2$ solutions contains firmly bound protein. The protein cannot be removed by numerous treatments with the amyl alcohol-chloroform deproteinizing mixture. Partridge[6] also reported that chondroitin sulfate could not be completely freed of protein by extracting it with phenol. Using such a procedure he found that the nitrogen content of chondromucoid could not be reduced below 7 per cent. Thus chondroitin sulfate which is extracted from cartilage using $CaCl_2$ solutions contains protein in a firmly bound state which cannot be removed by the procedure employed.

From the amino acid make-up of the protein isolated with the chondroitin sulfate, one might conclude that it is gelatin, as indicated by the high proline and hydroxyproline content.

Summary

In the extraction of chondroitin sulfate from cartilage using aqueous $CaCl_2$ as the solvent, protein is extracted along with the mucopolysaccharide. The protein is firmly bound to the chondroitin sulfate and cannot be removed by numerous repeated treatments with amyl alcohol chloroform mixtures. The amino acid pattern of the protein as determined by partition chromatography is compatable with that of gelatin.

Acknowledgment

The spectrographic analyses were kindly performed by Dr. Robert E. Mosher of the Department of Chemistry, Wayne University.

Mr. Abner Robinson of the Research Laboratory of Children's Fund of Michigan kindly performed the electrophoretic studies.

We are indebted to Dr. Eugene Roberts of Washington University College of Medicine, for carrying out the analysis of the amino acid content of the mucoprotein.

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RED FEATHER CAMPAIGN

"The United Defense Fund fills a great need during this period of mobilization and military activity in Korea. It is sustained by contributions made to the United Red Feather Campaigns. The latter perform essential functions in the normal civilian life of our communities. These worthy projects depend upon money raised during the Fall campaigns. They deserve the wholehearted support of physicians everywhere.

"More and more of our colleagues are being called into the Armed Forces. Our contributions will provide important services for them and at the same time assist us at home by extending the activities of voluntary hospitals, clinics, nursing services and other health agencies for citizens in the lower income groups.

"The medical profession has always advocated extension of medical and health services to these people by voluntary means. Private support will eliminate the hazard of governmental participation and control.

"The UDF Agencies are badly needed to care for the military through the USO, to assist civilians in densely populated defense areas, to establish community projects through the UCDS and to provide clothing for the Koreans through ARK. These are splendid activities of great importance at the present time.

"This year, it is possible for us to subscribe to both the Red Feather home activities and the UDF National Service Programs at one time. Let us get behind the Red Feather Campaign this year and make it a great success. We can render great service to our own communities and our Armed Services by so doing and can avoid the danger of government taking over these activities."—John W. Cline, M.D., President, American Medical Association.

Physical Medicine and Rehabilitation

The Application to Chronic Arthritis

By Max Karl Newman, M.D., F.A.C.P.
and
Alma Murphy, B.S., Ph.D.
Detroit, Michigan

THE PROBLEM of chronic disease and an aging population is of paramount importance in our future economic, political and humanitarian development. Chronic arthritis is a significant cause of disability, and may arise from several types of bone and connective tissue involvement, such as rheumatoid arthritis and nonarticular rheumatism (lumbago, stiff neck, bursitis, tenosynovitis and fascitis). Of prominent importance is the shoulder-hand syndrome which appears after lesions about the neck, arms and thorax (myocardial infarction and hemiplegia have been the most prominent cause in our geriatric medicine).

The prominence of rheumatic disease is noted by the fact that 7.5 million people are affected with some form of this malady, and it tends to make lifetime cripples, but does not kill.[6] Rheumatoid arthritis is encountered in 33 per cent of all new patients presenting themselves to civilian and military physicians.[4,5] Because of the chronicity, it is readily apparent that the patient must remain under medical supervision for a long time. Due to the recent lay publicity, the patient and the public have been led to expect miraculous cures, and the physician, too, has been neglecting the over-all problem. As Holbrook and Hill state that "no amount of magic medicine can restore destroyed joints and correct deformities; it is essential to prevent deformity, maintain joint motion and direct activities toward a specific cure."

It behooves the physician to have an optimistic outlook in treatment, since 75 to 80 per cent of all patients show a temporary and permanent response; of these patients, 25 per cent are prompt; 50 to 60 per cent have varying degrees of improvement; 20 to 25 per cent show poor results. Hence, the object of management of chronic arthritis can be outlined as follows: (1) prevent and lessen deformity; (2) relieve symptoms; (3) shorten duration of the disease.

Through the years and to the present steroid era, physical medicine and rehabilitation achieves these objectives better than any other *single form* of treatment.[10] It has survived the test of time (the steroids must still prove their efficacy as noted by the reserved reports at the 1951 meeting of the American Rheumatism Association), and it can be combined with all useful forms of medical and surgical management. Polley has stated that "physical medicine should not be used to the exclusion of other therapeutic measures, and in most instances other forms of treatment should not be used to the exclusion of physical medicine." Lockie[8] and his co-workers stated that "it is our opinion that physical therapy plays an important role in management of arthritis."

The all-around program should be started in the hospital preferably, during a two- to four-week inculcation of therapeutic endeavors, i.e., diagnostic, prognostic and therapeutic. To be effective, it must be simple, readily available and continued in the home. The professional conduct of the patient serves to prepare him for the proper psychological approach: that the disease is chronic; ultimately the outlook is favorable as based on statistical experience; that the course of improvement is not smooth but is progressively better; that the patient must not lose hope but must continue to help himself; and must follow all suggestions with minute care. The outlined program for home participation is of extreme importance. This is evidenced by the fact that 88 per cent of all patients with rheumatoid arthritis had continuing benefits as a result of home treatment.[11]

Treatment of Chronic Articular Disease

The management of rheumatic disease in its chronic phases makes use of similar physical agents and principles. With particular exceptions as indicated by the various etiologies, specific medical and surgical needs, the following discussion can be applied to all forms of chronic arthritis and associated non-articular rheumatisms.

From the departments of Physical Medicine and Rehabilitation, Grace Hospital and Detroit Memorial Hospital.
Dr. Newman is Director, Department of Physical Medicine and Rehabilitation, Grace Hospital, Detroit Memorial Hospital and Wayne County General Hospital.
Dr. Murphy is Chief Therapist and Director of Physiologic Research, Detroit Memorial Hospital.

Bed Rest.—This form of physical therapy is a much used and much abused modality. Its basic value is to protect the joints and to overcome fatigue. The average time in bed is ten to twelve hours, depending on the acuteness or severity of the involvement. Details to be observed are: (1) a firm non-sagging mattress with the bed readily accessible from both sides; (2) footboards to support the bedclothes and to place the feet against so as to prevent footdrop; (3) a small pillow under the head, but none under the knees—for obvious reasons; (4) proper alignment of limbs and trunk so that the body is in a supine position, the heels are over the edge of the mattress and against the footboard, sandbags in the axilla to prevent adduction deformity of the shoulder, sandbags against the thighs to prevent excessive external rotation of the lower extremities, proper positioning of the wrists and elbows to prevent the usual flexion deformities; (5) frequent changes of position in bed so that all joints are carried out through as complete a range of motion as possible daily. Lockie[8] suggests breathing exercises consisting of the following: (1) deep breathing with chest elevation, inhaling through the nose, exhaling through the mouth; (2) diaphragmatic breathing with the chest raised during inhalation and pulling in of the abdominal muscles during exhalation; (3) abdominal breathing with chest raising, back flattening with abdominal muscle contracting; (4) trunk exercises executed at this time consist of back flattening by pulling the anterior pelvis up and the posterior pelvis down to decrease the lordosis; abduction of the scapulae by contracting the rhomboids with relaxation of the humerus; gluteal and quadriceps setting to maintain the muscle tone. In carrying out this modified type of bed rest, the program should be about every hour on the hour, with fatigue as the governing factor of activity.

Thermotherapy.—The use of heat in its various physical applications is dictated by its physiologic effects. Heat produces a dilatation of small and some large arteries, increases the rate of blood flow through the tissues, accelerates tissue metabolism, has an analgesic effect on the affected joints, relaxes tissue preparatory to massage and exercise. In its application, both local and general, it should be mild to the painful areas. Some of the methods used are as follows:

1. *Luminous baker.*—Using a carbon element or tungsten filament bulb, it can be applied at a comfortable distance. Fancy claims of various types and colors of bulbs is unwarranted. However, it is thought that luminous heat has a shorter wave length and penetrates tissue more deeply.[3] More recent original investigation has shown that power output alone determines the depth of tissue heating.[9] Treatments are given for thirty minutes, one to two times daily at a comfortable distance.[2,7]

2. *Hot foments.*—Turkish towels covered with blankets and changed every five minutes can be used. Silica gel applicators hold a moist heat for thirty minutes, and can be applied to any part of the body with ease (Hydrocaollator). Hot wet towels with hot water bottles give a steaming pack. All these methods can be carried out simply in the home.

3. *Contrast baths.*—These serve to produce hyperemia and are especially indicated in cold extremities (where vascular exercise is indicated). The bath is carried out in two containers, one with water at 50-60° F., and the other at 105-110° F. The extremity is immersed in the hot water for ten minutes, then in the cold water for one minute; then alternations are performed with the extremities placed in the hot water for four minutes and then into the cold water for one minute, the total process lasting about twenty-five to thirty minutes. This routine produces a greater elevation of cutaneous temperature and optimal active contraction and relaxation of blood vessels than simple foot baths.[1] Daily repetition is advised.

4. *Paraffin.*—Dips to the hands and feet provide a more continuous method of local heat application. This routine is used for either rheumatoid or osteoarthritis, and serve to supplement other methods of heat transferance. When ordinary canning paraffin, having a melting point of 120-130° F. is used, burns are impossible.

5. *Deep tissue heating.*—Heating by high frequency radiation has a limited usefulness. The machines are expensive and should be confined to office or institutional use. The present argument about the comparative values of short wave diathermy with therapeutic wave lengths of 6 to 23 meters as against the ultrashort wavelengths of

centimeters is not important—both are equally as effective in producing deep tissue heat. The former uses special applicators such as drums and cables. The latter is applied in a manner similar to a bulb heater (since it has optical properties). Ultrasonics can also be used for this type of heating, but until its physical pathology is better understood, it should be avoided.

6. *General body heating* by means of fever cabinets still has a limited usefulness. The heat serves as a metabolic whip, and has a definite "alarm" effect on the body (hence similar to the steroids). Hence, acute rheumatic fever and some acute exacerbations of chronic arthritis thrive with this routine. It is contraindicated in older people, and in debilitated arthritics. More effective is the use of large tubs such as the Hubbard tank and therapeutic pool. Water at the temperature of 100-102° F. yields a general temperature elevation, and permits underwater exercise, but requires a well trained therapist in attendance. It may be used two to three times per week.

The effective triad in heat application consists of the following alternations: (1) dry heat with luminous bakers followed by massage and exercise; (2) general body heating with a fever cabinet or blankets; (3) moist heat in a tub, tank, whirlpool or therapeutic pool. Used every other day, these modalities become an effective procedure in controlling the arthritic process.

Massage.—Massage has its application as part of the triad of heat, massage and exercise. It serves by mechanical pressure to increase circulation in the absence of normal muscle action. And it brings about muscle relaxation and increased joint range of motion. The massage procedes from the proximal parts to the distal areas of the extremities, and is never immediately carried out over a joint (except in quiescent joints). Generally, deep sedative massage (kneading and friction) is used, and may be combined with superficial and deep stroking. It is considered as most desirable to massage the back for ten to fifteen minutes, ten minutes to the lower extremities, five to ten minutes to the upper extremities. The same routine can be taught to the patient's family for home use. Massage is always preceded by some form of heat, and generally is followed by exercise.

Exercise and Rehabilitation.—With the use of the preceding physical modalities, the joint is prepared for its activity and useful accomplishment. By means of exercise and other special measures, we develop medical rehabilitation.

The function of exercise is to prevent deformity and ankylosis; to increase circulation by the contraction of muscles; to increase muscle strength; to increase general metabolism; and to mobilize the joints for useful function. Special exercises consist of occupational therapy procedures that provide the patient with a functional followup after medical exercise has produced mobility. The two general types of exercise are called active and passive. The latter is used only where it is desirable to give the patient the feeling of joint motion, and should be discontinued as soon as possible. This applies also to all sorts of mechanical devices which obviate the patient's own muscle contractions. Active motion is started as soon as possible. Modified active exercises are active assistive exercise whereby the patient tries to carry out the movement, and is assisted by the operator; active resistive exercise whereby the patient resists the operator; and thirdly, active free motion—or voluntary motion. Active assistive motion serves to increase joint mobility, aids in muscle reeducation, adds strength and endurance to muscle, and proceeds to voluntary exercise. Voluntary exercise is the desired goal, and is used as soon as possible in producing normal range of motion against gravity. Exercise can be assisted by the use of therapeutic pools, walkers, sling suspensions, pulleys, shoulder wheels and the like. Weight bearing occurs when muscles are strong enough to support the body, and sufficient range of motion gives good function.

Postural exercises are of extreme importance, and begin with the relaxation exercises in bed. Then they proceed to the sitting and standing positions.

Rehabilitation measures at this time include functional retraining. It means thaat the patient is developed to the point of greatest range of motion and functional use of the lower extremities. Proper fitting shoes consist of a low heel (Thomas curve if indicated), metatarsal bars, good shank, longitudinal sponge rubber arch supports, metatarsal pads, heel pads and ankle-foot bandaging. Splint devices such as braces, crutches, and wheel chairs are applied in proper sequence. Gait training is accomplished with parallel bars, stairs,

ramps and similar elevations. Shoulders are mobilized with shoulder wheels, shoulder ladders, pulleys and occupational therapy. Functional occupational therapy such as weaving, braiding, carpentry, painting, jig saws, looms annd recreational programs serve to motivate the patient, and increase the range of motion of the joints. It also serves to build endurance and strength in the muscles, and to teach gross and fine co-ordination of the upper and lower extremities. If necessary, psychological surveys are made to orient the patient into a changed pattern of economic usefulness. Vocational training through the Department of Vocational Rehabilitation will fit the partially handicapped patient into a sphere of independence.

Treatment of Special Forms of Rheumatism

The treatment of special forms of rheumatism can be touched briefly. Using the above principles, special measures are added to the total management program depending on the type of rheumatism.

1. Cervical osteoarthritis with brachial neuralgia and neuritis is best treated by local heat and massage to the cervical spine, followed by neck (Syre) traction. Frequently this is associated with a peri-arthritis of the shoulder so concomitant shoulder exercise is needed. The routine of treatment can be started under professional guidance, and then is carried out in the home by simple bed traction apparatus. About five pounds of traction over the head of the bed suffices to offer continuing relief in this condition.

2. Bursitis of the shoulder can best be treated with x-ray therapy, local heat therapy, needling and surgical excision. However, the aftercare is most important—mobilization of the shoulder with active assistive and resistive exercises. By means of a home-made shoulder wheel and ladder, rapid increase in range of motion is obtained.

3. Shoulder-hand syndrome is a common enough anathema to warrant comment. Special measures such as stellate ganglion block, sympathetic local nerve block, drugs such as CCK-179 combined with physical measures of heat, massage and exercise serve to mobilize the areas rapidly. Steroids are useful in decalcifications of this condition, hence the use of testosterone, cortisone and ACTH.

4. Acute back condition which is basically an acute fibrositis is best treated by immobilization in bed, muscle relaxant drugs such as mephenesin, procaine and curare, and simple back supports. The importance of determining the possible organic blocks to the spinal cord should always be borne in mind. Minimal manipulation serves to produce dramatic results in these acute processes, and should be used with caution—but should be used.

Summary

The management of chronic arthritis and associated diseases depends on good judgment exercised by the supervising physician. Adequate medical management, judicious use of steroid compounds, metabolic correction, concomitant surgical measures combined with physical medicine and rehabilitation give the patient an opportunity to achieve full mental and physical improvement. The more extensive use of simpler measures in physical medicine should significantly relieve symptoms, help shorten the duration of the disease and achieve a more mobile and painless joint.

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Oral Cortisone

By Mark Dale, M.D.
Highland Park, Michigan

THIS STUDY was undertaken to determine the effectiveness of orally administered cortisone, and to judge the feasibility of office treatment of a variety of clinical entities with this steroid hormone. It is a relatively short-term study in a relatively small series of cases, but represents a random sample of the uses of oral cortisone in the average practice.

Included in this series are the following diseases: Rheumatoid arthritis, osteoarthritis, atopic eczema, and multiple sclerosis. The majority of the cases were those with a diagnosis of arthritis. The product used was oral cortisone acetate marketed under the name of Cortone Tablets, and they are produced by Merck and Company, Rahway, N. J. The potency is 25 mgm. per tablet.*

Case Summaries

Case 1. W.B.—Rheumatoid arthritis.—This patient is a forty-six-year-old white machine operator who was first seen on March 13, 1950, with typical rheumatoid arthritis of both knee joints, elbows, and the fingers of both hands. On April 9, 1950, he was given a two-weeks course of ACTH with a remission of symptoms, and he was able to return to his factory job. He did quite well until December 4, 1950, when he again developed severe pain, swelling and limitation of motion in the left elbow joint, the left hand and both ankles. On December 18, 1950, he was started on cortisone tablets in the following dosage schedule: 300 mgm. (given 75 mgm. every six hours for four doses) the first day, 200 mgm. (given 50 mgm. every four hours for four doses) the second day, and 100 mgm. on the third day and all succeeding days.

The patient noticed marked improvement with relief of pain and stiffness within twenty-four hours of the beginning of oral cortisone therapy, and by the third day he felt extremely well. He continued to be free of pain so that on January 2, 1951, the dose could be reduced to 75 mgm. per day without relapse. The patient continued to be free of pain and experienced a feeling of general well-being until February 12, 1951, when, because of production difficulties, no more of the tablets were available. He continued to feel well until a week later, when he again developed rather marked pain and swelling in the left elbow joint. The other joints, previously involved, did not relapse, however. Other pertinent facts are summarized in the accompanying tables.

Case 2. B.R.—Rheumatoid arthritis.—This patient is a fifty-eight-year-old white woman with involvement of the fingers of both hands, elbows, shoulders, and knee joints. On December 30, 1950, the patient was started on a course of oral cortisone therapy in a dosage schedule similar to that of Case 1, i.e., 300 mgm. the first day, 200 mgm. the second day, and 100 mgm. daily thereafter. By January 6, 1951, she had 75 per cent less pain and 60 per cent less stiffness, and experienced a feeling of well-being, more vigor and a voracious appetite. On January 13, 1951, it was noted that the facies were somewhat of the Cushing type, with rounding of the cheeks and supraclavicular fat pads began to appear. There was an acneiform eruption and the blood pressure was 140/80. The patient had been placed on a salt-free diet before therapy was instituted but admitted cheating. She was cautioned in regard to salt-intake, and although she appeared to be less puffy and edematous on subsequent visits, she still retained a moon-face and later developed marked fat pads at the base of the neck and in the supraclavicular fossae, as well as moderate hirsutism. The treatment was continued until February 10, 1951, at which time it was stopped. The discontinuance was followed by a prompt relapse, with a return of the previous symptoms.

Case 3. P.I.—Rheumatoid arthritis.—This patient was a twenty-nine-year-old white woman with severe rheumatoid arthritis of the fingers of both hands, knees, and ankles. She complained of marked stiffness and pain during inactivity, with a limbering-up effect on renewal of activity. Oral cortisone was started on December 30, 1950, in the same dosage scale as mentioned in Cases 1 and 2 above. On January 6, 1951, a week later, there was 50 per cent less stiffness and 75 per cent less pain. On January 13, 1951, there were even more improvement, and a definite euphoria was experienced by the patient. On February 6, 1951, an attempt was made to reduce the daily dosage from 100 mgm. to 75 mgm. but the patient experienced a prompt return of pain within twenty-four hours. At this time the patient had developed rounding of the facial contours and moderate hirsutism. On March 13, 1951, therapy was discontinued because of a shortage of the medication and rather severe pain developed in the left knee. The other joints did not relapse as did the knee.

Case 4. L.C.—Osteoarthritis.—This patient is a fifty-three-year-old white woman with osteoarthritis involving the hands, left wrist and knees. Several typical Heberden's nodes are present on the fingers. On January 4, 1951, oral cortisone was started in a dosage of 50 mgm. daily. She was seen eleven days later with no improvement. On January 25, 1951, the dosage scale noted in the above cases was begun and there was slightly more relief of pain and swelling but a satisfactory remission could not be seen. The patient was kept on

* These tablets were provided through the courtesy of Dr. Augustus Gibson, Executive Director, Medical Division of Merck and Company, Rahway, N. J.

100 mgm. cortisone orally daily until April 3, 1951, when she began to be troubled with nervousness, insomnia, and marked irritability. The dosage was then reduced to 50 mgm. per day, and kept at that level until May 22, 1951, when it was discontinued.

Case 5. B.G.—Osteoarthritis.—This patient is a fifty-seven-year-old white woman with advanced osteoarthritis of the lumbar vertebrae, knee joints, and the interphalangeal joints of both hands. Because of the severity of her pain, it was felt that this patient should be hospitalized for treatment. While awaiting adequate hospital accommodation, oral cortisone therapy was started on January 14, 1951, on the above-mentioned dosage scale. Within twenty-four hours the patient experienced marked relief of joint pain and moderate relief of stiffness. She had much better motion in all of the affected joints, and constantly remarked about her general feeling of well-being. The treatment was carried on for a period of seven days, after which the patient decided to discontinue the treatment on her own initiative.

Case 6. E.R.—Osteoarthritis.—This patient is a fifty-one-year-old white physician, who complained of severe sciatic-type pain with radiation down the antero-lateral aspect of the right thigh to the knee. X-ray studies revealed marked hypertrophic changes in the lumbar vertebrae with narrowing of the intervertebral spaces. Cortisone tablets were started on May 8, 1951, giving 300 mgm. the first day, 200 mgm. the second day and 100 mgm. daily thereafter until a total of one gram had been given over a period of a week's time. The patient stated that there was no relief of pain at any time, his back remained stiff, and the neuritic involvement was unchanged.

Case 7. C.K.—Atopic eczema.—This patient was a twenty-four-year-old veteran of World War II, with a very severe atopic eczema distributed over the face, neck, chest, arms, and legs. The lesion had been present for the past four years, and was characterized by alternate patches of lichenified scaling areas, and areas of erythema and weeping. There was marked pruritus. The patient was started on oral cortisone in the dosages used above, and within four days the itching had abated and the skin had cleared by about twenty-five per cent. The patient was kept on 100 mgm. oral cortisone daily for another week, but during that time he suffered an acute exacerbation of eczema and he refused to continue treatment.

Case 8. E.T.—Multiple sclerosis.—This patient was a thirty-four-year-old white woman who had been afflicted with multiple sclerosis for the past twelve years. She was bed-ridden and totally unable to care for herself. Tremor, ataxia, generalized spasticity, and scanning speech were present. There was a marked lateral nystagmus. The patient took oral cortisone in the above-noted dosage schedule until one gram had been taken and then stopped the drug because of a shortage of the tablets. During the treatment period there was a slight improvement in the mood with slight euphoria, but no change in the neurological signs or symptoms. It was felt that this patient did not have an adequate trial of therapy.

Discussion

The first three cases described above, all with a diagnosis of rheumatoid arthritis, had a very definite remission of symptoms with oral cortisone. These patients were carried as office patients without difficulty, but close watch was kept on these cases with frequent office visits, checks on blood pressure, pulse, weight, mental symptoms, edema, etc., as were all of the cases in the series. It would appear from these rather scant data that rheumatoid arthritis responds rather well to oral cortisone.

As to treatment of osteoarthritis with cortisone or adrenocorticotropic hormone, there has been a great deal of controversy. It can safely be said that few cases have been reported in the literature. In a panel discussion of the meeting of the American Rheumatism Association for 1950, Dr. Otto Steinbrocker[3] cited three cases of osteoarthritis, in all of which there was a marked reduction of pain and improved functional mobility, within the limits of the defect. He mentioned one case of spinal osteoarthritis, previously unrelieved by physical therapy, deep x-ray radiation, and other procedures, which responded satisfactorily to cortisone.

We have reported in an earlier issue of this JOURNAL,[1] two cases of osteoarthritis which responded well to ACTH, and since then we have treated several others. The effect was not simply one of analgesia, but relief of pain, stiffness, and increased mobility of the affected joints. In this series we treated three cases of osteoarthritis with oral cortisone. In one the response was dramatic in the relief of the arthritic symptoms. In the other two, it can be said that the treatment failed.

The case of atopic eczema is of special interest inasmuch as there was temporary relief of pruritus and some clearing of the skin lesions. Later, however, there was an exacerbation while the patient was receiving treatment, and he refused to continue. It was felt that this case represented a failure of therapy, but a personal communication from Dr. Robert A. Peterman of the Medical Division of Merck and Company mentions a similar case with apparent failure after a week of

treatment, but when the course of oral cortisone, given 300 mgm; 200 mgm; and 100 mgm. on successive days, was reinstituted and given as divided doses, the results were excellent and a remission of the eczema lasted for over three weeks.

Case 8, the patient with multiple sclerosis, showed no change in the course of the disease, but it is felt that this patient did not have cortisone in large enough dosage over a long enough period of time, due to a temporary critical shortage of

TABLE I. DEGREE OF RELIEF OF ARTHRITIC SYMPTOMS WITH ORAL CORTISONE (CORTONE, MERCK)

	W.B.	B.R.	P.I.	L.C.	B.G.	E.R.
Joint Pain	++++	+++	+++	+	++++	0
Joint Stiffness	+++	++	++	+	++	0
Limitation of Motion	+++	++	++	+	+++	0
Joint Swelling	++	++	++	++	++	0
Circulatory Improvement	+++	+	+	+	++	0

TABLE II. TABULATION OF SIDE-EFFECTS RESULTING FROM USE OF ORAL CORTISONE (CORTONE, MERCK)

Side-Effect	W.B.	B.R.	P.I.	C.K.	L.C.	E.T.	B.G.	E.R.
Nausea, epigastric distress	0	0	0	0	0	0	0	0
Moon facies	0	++++	++	0	0	0	0	0
Recession of temporal hairline	0	+	0	0	0	0	0	0
Acne	0	+	+	0	0	0	0	0
Glycosuria	0	0	0	0	0	0	0	
Hirsutism	0	++	+	0	+	0	0	0
Clinical Hypo-potassemia	0	0	0	0	0	0	0	0
Edema with no retention	+	+	0	0	0	0	+	0
Skin pigmentation	0	0	0	0	0	0	0	0
Hypertension	0	0	0	0	0	0	0	0
"Buffalo-Hump" fat deposits	0	++	0	0	0	0	0	0
Euphoria	+	0	0	0	+	0	++	

the drug. It is also felt that many of the so-called hopeless neurological cases should have further trials of adequate treatment with the adrenal cortical steroids. It is conceivable that these diseases of the nervous system may eventually be classed as diseases of adaptation. Selye reports treatment of multiple sclerosis with ACTH, but he also felt that inadequate treatment was given.[2]

It should be mentioned that after long-continued use of cortisone, adrenal cortical suppression may occur. In view of this fact, it might be well for the physician to give, one or twice a week, 50 mgm. of ACTH in order to produce stimulation of the suppressed adrenal cortex. More data on this subject will have to be evaluated, but the use of ACTH in this situation would seem to be justified on physiological gronds.

As has been shown elsewhere in the literature, cortisone is a potent hormonal agent, with definite physiological effects resulting from its administration. Consequently, the physician planning to use oral cortisone must be familiar with the metabolic effects of the drug in retention of sodium and water, depletion of potassium, decrease in insulin response in diabetes, negative nitrogen balance, and delay in wound healing. The hormonal effects must also be well understood, since various degrees of Cushing's syndrome so frequently appear during the administration of cortisone. Mental changes also occur during treatment in some cases, although they appear to be more common in patients with latent mental derangement, an intensification of symptoms coming on during therapy with cortisone. In short, when oral cortisone is used, the patient should be seen daily until the maintenance dosage is attained, and after that at frequent intervals so that complications cannot reach a serious point. It is wise to check the patient's blood sugar level before, during and after treatment, and it is also advisable to administer potassium as the chloride or acetate salt in cases when the diet might be inadequate to supply potassium, or where evidence of potassium depletion such as marked weakness, hypotension, or electrocardiographic changes such as flattening

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ACTH and Cortisone in the Treatment of the Shoulder-Hand Syndrome

By John W. Sigler, M.D.
and
Dwight C. Ensign, M.D.
Detroit, Michigan

THE CONCEPT of the shoulder-hand syndrome as a manifestation of reflex dystrophy of the upper extremity is of fairly recent development. It had long been known that shoulder pains and disabilities occasionally followed such apparently unrelated episodes as myocardial infarction[2] or an attack of pneumonia. It had also been recognized that following trauma of various sorts, causalgic states occasionally occurred with acute swelling, pain, and vasomotor changes in the hand and wrist, sometimes with x-ray findings characteristic of Sudeck's atrophy. Changes in the affected limbs of hemiplegics had also been described, attributed to reflex neurovascular disturbances. To Steinbrocker[6] and his associates must go most of the credit for the concept of the shoulder-hand syndrome, which unites a group of previously unrelated manifestations into a rather definite entity.

The characteristic clinical picture is that of an individual who presents himself with a painful shoulder disability on the order of a periarthritis, which is followed after a variable interval by the appearance of pain, swelling, and limitation of motion of the hand on the same side. As a rule, the elbow joint is uninvolved. This combination of involvement of shoulder and hand is, of course, what gives the name to the syndrome. The manifestations at the shoulder may range all the way from moderate limitation of motion and moderate pain, to complete immobility of the joint with intense pain. Similarly, the hand symptoms may consist of only slight discomfort, swelling, and limitation both of flexion and of complete extension of the fingers, or may rapidly progress to extreme incapacity with tight swelling, dusky erythema and local heat involving the entire wrist, hand and fingers. The swelling of the hand is generalized, not localized to joint levels as in rheumatoid arthritis, and does not yield to pressure. In some instances, hand involvement may precede shoulder involvement.

The usual course of this disability, without treatment, is a very chronic one. Steinbrocker[5] has described three phases or stages. The first stage, starting as above, usually lasts from three to six months, and is followed, if the cycle is not interrupted by successful treatment, by a second phase also lasting three to six months with gradual relief of the shoulder dysfunction and of the acute hand manifestations, but with the development of persisting stiffness and flexion deformity of the fingers with atrophy of intrinsic musculature of the hand and trophic changes in the skin. The third stage lasts for many months and may proceed to irreversible changes with smooth atrophic skin, increasing wasting, and contractures of the flexor tendons and thickening of the palmar fascia on the order of Dupuytren's contracture.

Among etiologic factors which have been incriminated are a number of peripheral lesions including trauma or suppuration of the extremity; vascular disease such as thrombophlebitis; osteoarthritis of the cervical spine with encroachment on intervertebral foramina causing impingement on roots going to the brachial plexus; myocardial infarction and other intrathoracic diseases, such as pneumonia. Lesions of the cord and ganglia may be a factor in some cases. Cerebral damage, such as hemiplegia, likewise may be followed by this syndrome. There remains a fairly large group of individuals who develop the typical shoulder-hand syndrome in whom no specific preceding disturbance is apparent, and these are referred to by Steinbrocker as representing the idiopathic variety of the syndrome.

The mechanism by which such seemingly diverse factors can produce a common end-result may be made more understandable by reference to recent concepts in neurophysiology. Obviously the disturbance is not a segmental one, and there seems to be involvement of the parasympathetic and sympathetic divisions of the autonomic nervous system and of motor functions as well. According to Lorente de No, and also Livingston,[6] the effect of the internuncial pool may well be the important factor. Afferent impulses from various levels, originating in painful or traumatized areas, enter the internuncial pool with its network of interconnecting neurones in the central gray matter.

From the Arthritis Clinic, Department of Medicine, Henry Ford Hospital, Detroit.
Presented at the annual meeting of the American Rheumatism Association, Atlantic City, June 8, 1951.

The effect may spread upwards or downwards and excite efferent impulses in the sympathetic neurones and also affect the anterior horn cells causing motor impairment in the shoulder muscles. Once the syndrome is established, it may become self-perpetuating, due to the painful stimuli constantly coming in from the region of the shoulder and hand.

Differential diagnosis is important, as it is essential to gain relief for the patient before disabling contractures develop. In the early stage the condition may resemble an ordinary periarthritis of the shoulder. Soft tissue calcification is seldom present on the affected side in our experience. A history of coronary disease, or the presence of intraforaminal osteoarthritis of the cervical spine should suggest the likelihood of a developing shoulder-hand syndrome, and when involvement of the corresponding hand occurs the diagnosis is complete. To be differentiated from this are the manifestations of scalenus anticus syndrome, though here involvement of the hand is very uncommon. An early stage of rheumatoid arthritis is often suggested, particularly in those less common instances of shoulder-hand syndrome where bilateral involvement is present; however, the hand swelling in the shoulder-hand affection is uniform, and is not localized to proximal interphalangeal and metacarpo-phalangeal articulations as is typical in rheumatoid arthritis. The sedimentation rate is rarely elevated in shoulder-hand syndrome. Gout may be suggested, especially if hand symptoms are the initial ones, but when this is suspected a therapeutic test with intensive colchicine administration will settle the question within twenty-four hours. In late phases of hand involvement, the hand may very closely resemble an advanced scleroderma, but characteristic findings of this condition are absent elsewhere in the body.

The previously available methods of treatment have left much to be desired. As with simple periarthritis, some patients gradually recover without any specific treatment; but, again as with periarthritis, the prolonged immobilization because of pain may be followed by trophic changes and permanent disability. Manipulation of the shoulder under anesthesia usually aggravates symptoms. Immobilization is suggested by the acuteness of the symptoms, but while this may partially ease the painful sensations, it favors the development of contractures and trophic changes. All forms of physiotherapy have been used extensively, with but palliative effect in most instances. Radiation therapy to the affected shoulder or to the cervical region or to both is much less effective in the typical fully developed shoulder-hand syndrome than is such treatment in cases of acute calcareous tendonitis of the shoulder. Procaine block of the stellate or upper dorsal ganglia has been the most successful form of therapy until recently.[6,7] If relief is obtained from the initial block but is not maintained, repeated blocks may be done. Patients who get temporary relief from stellate block may be given a better chance for recovery by sympathectomy.

TABLE I

	Shoulder-Hand (7 cases)	Periarthritis (5 cases)
Sex	Males 3 Females 4	Males 4 Females 1
Age	54 - 71 (Average 61.4)	36 - 52 (Average 44.2)
Etiology	Myocardial infarction 2 Post-traumatic 2 Cervical osteo-arthritis 1 Unknown 2	3 2
Duration of Symptoms	7 days to 10 months (Average 115.6 days)	1 day to 6 months (Average 104 days)

Because of the striking effects produced by ACTH and cortisone in some other acute joint conditions, it seemed logical to explore the possibilities of treatment with these agents in cases of periarthritis and of shoulder-hand syndrome. Hume and Moore[4] recently reported gratifying results from the treatment with ACTH of five patients with acute subdeltoid bursitis associated with calcified supraspinatus tendonitis. Steinbrocker, Guck, Vetter and O'Connor[5] gave a preliminary report on the treatment of four patients with shoulder-hand syndrome using ACTH, and subsequently Ehrlich, Carp, Berkowitz, Spitzer, Silver and Steinbrocker[1] reported on the treatment of fourteen patients with periarthritis of the shoulder.

The present study is based on a group of twelve patients, seven of whom presented the complete shoulder-hand syndrome and five of whom had periarthritis without hand involvement. The data regarding sex, age, etiologic factors, and duration of symptoms prior to hormone therapy are summarized in Table I. As will be noted, the average age of the patients with shoulder-hand syndrome was greater than that of the periarthritis group. From an etiologic standpoint, two of the shoulder-

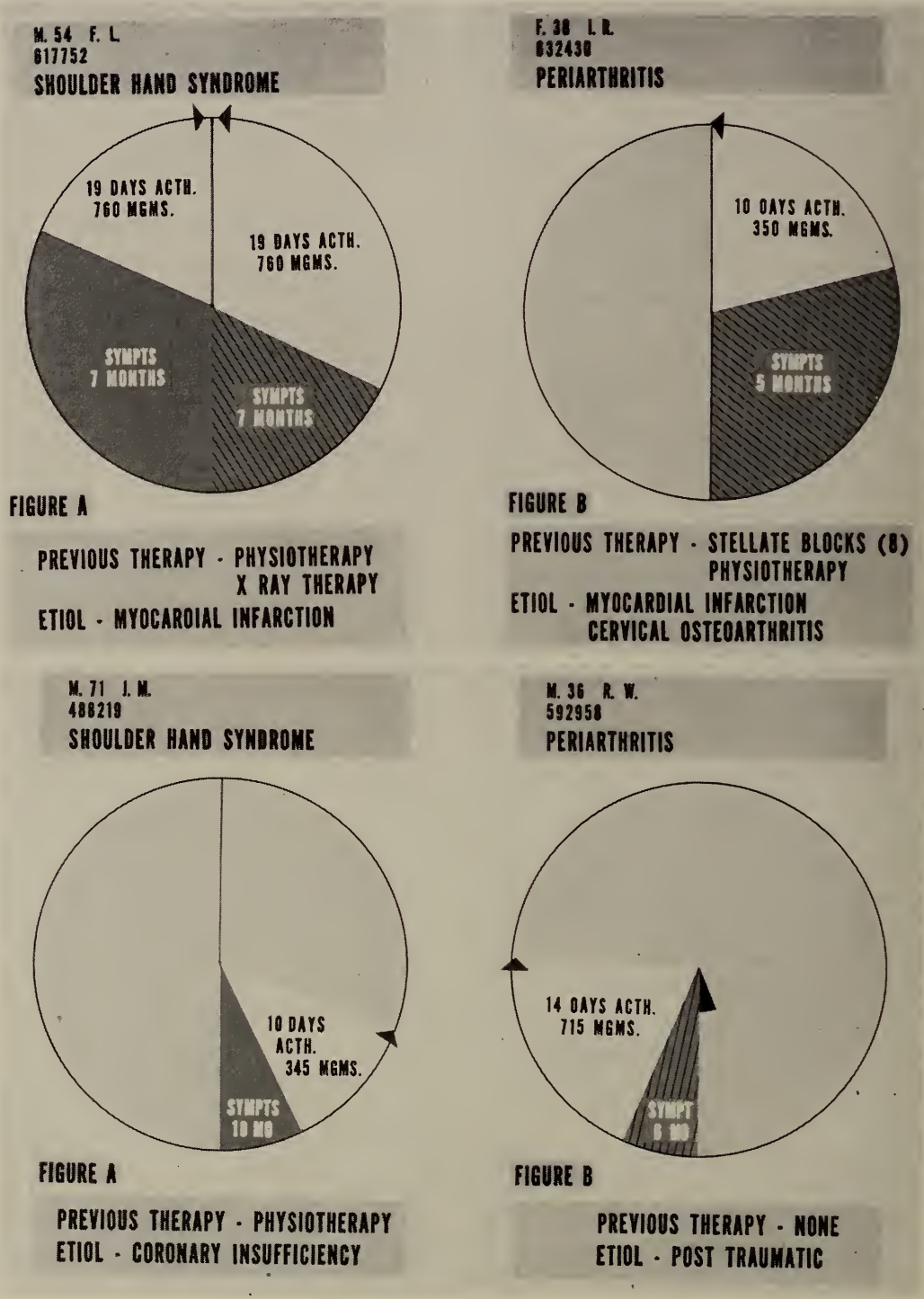


Fig. 1 a and b *(above)*; Fig. 2 a and b *(below)*.

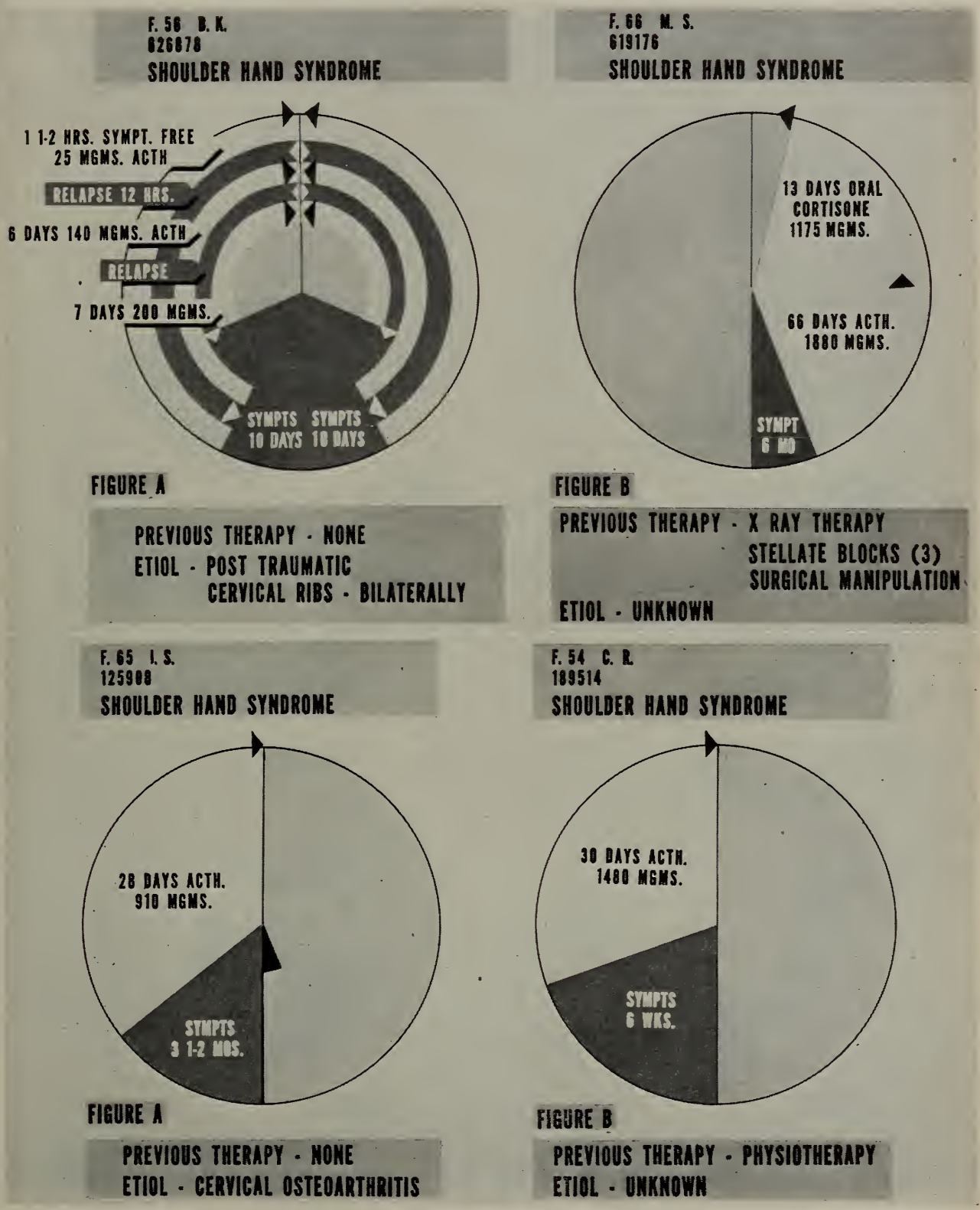


Fig. 3 a and b *(above)*; Fig. 4 a and b *(below)*.

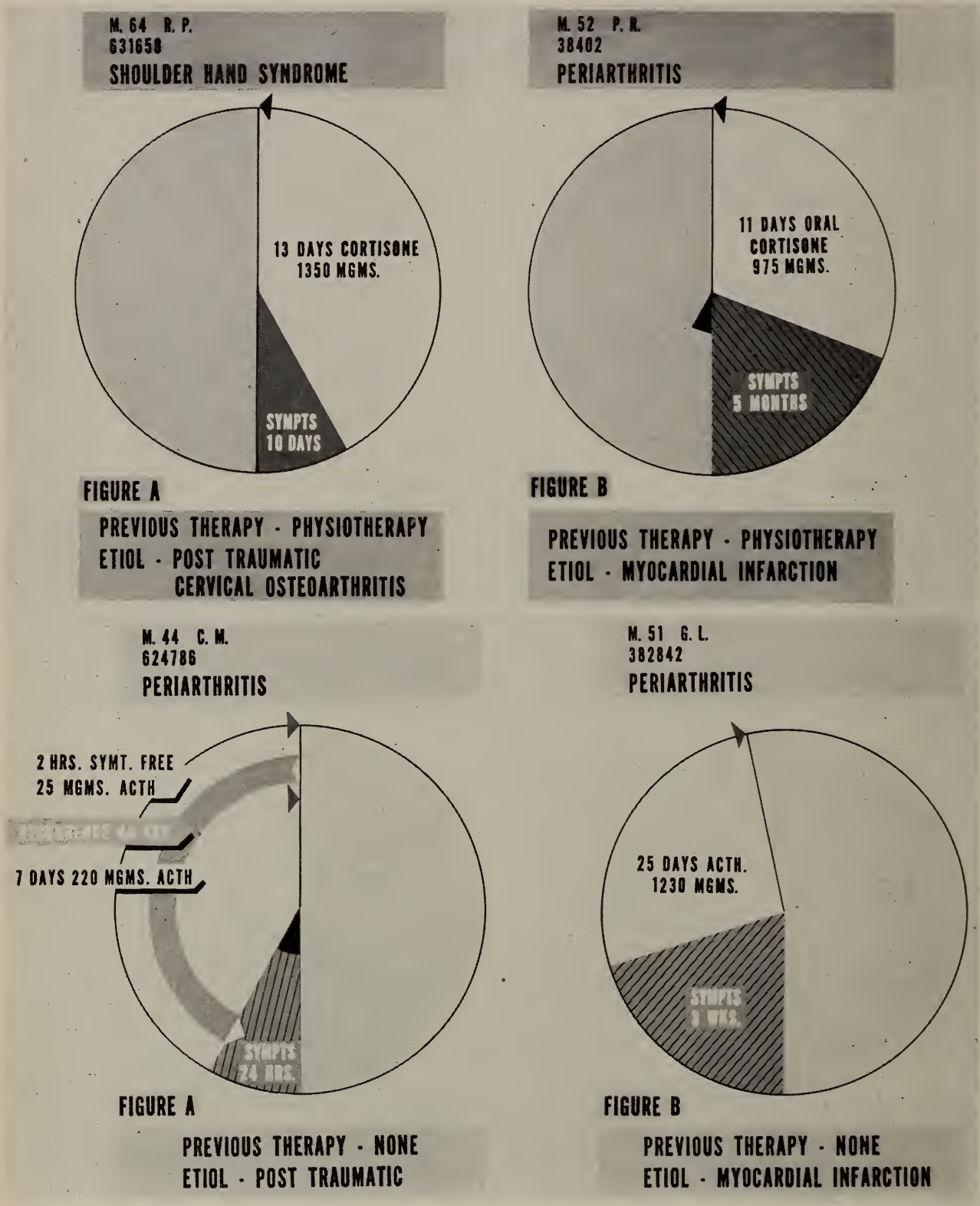


Fig. 5 a and b *(above)*; Fig. 6 a and b *(below)*.

hand syndromes followed myocardial infarction, two were post-traumatic, one had associated cervical osteoarthritis, and two were of unknown etiology. All of these patients were in Steinbrocker's first phase of the disease. In the periarthritis group, three patients developed their symptoms following myocardial damage and two were post-traumatic.

The pertinent data regarding the individual patients are presented in a series of graphic charts (Figs. 1 to 6). In interpreting these charts, the following points will be helpful:

1. Each circle represents one patient, facing the examiner.
2. Each lateral hemisphere designates a corresponding upper extremity as the patient faces the examiner.
3. A normal upper extremity with full range of motion is designated by a clear light-grey hemisphere.
4. An involved upper extremity is indicated by a darkly shaded lower sector in the corresponding hemisphere.
5. The upper radius of the shaded sector designates the maximum permitted arc of motion in the affected extremity before treatment was begun. Uniform dark-grey shading in this sector indicates that the complete shoulder-hand syndrome is present on the affected side; parallel lining in the shaded sector represents shoulder involvement alone.
6. The increased range of motion accomplished during treatment with the indicated amount of hormone is represented by the upper clear sector on the affected side, with peripheral arrow.
7. In each case, the sex and age of the patient, the duration of symptoms prior to hormone therapy, the previous treatment which had been employed, and the etiologic factors are shown by the printed legends, as well as the duration of treatment and the amount of ACTH or cortisone which was used.

As an example of interpretation of these graphic figures, the patient represented in Figure 1 *B* was a woman of thirty-eight, with periarthritis of the left shoulder of five months' duration, following myocardial infarction; cervical osteoarthritis was also present. Previous therapy had consisted of eight stellate blocks and physiotherapy. There was no involvement of the right upper extremity, which had full range of motion. The shaded lower sector shows the maximum motion present in the left upper extremity when the patient was first seen, 105° from the dependent position. Full range of motion, as indicated by the peripheral arrow in the clear upper sector, was obtained after a total of 350 mgms. of ACTH over a ten-day period. In this case, as in all others in this series, intensive physiotherapy was begun as soon as pain in the extremity was relieved, usually on the second to fifth day.

Figure 1 *A* represents a man of fifty-four with bilateral shoulder involvement. On the left, as indicated by the lines in the lower dark sector of the corresponding hemisphere, there was periarthritis alone, while on the right, as shown by the unlined dark segment, the complete shoulder-hand syndrome was present. As in all of these figures the upper clear sectors with peripheral arrows show the improvement which occurred during therapy, which in this case consisted of 760 mgms. of ACTH over a nineteen-day period. Both the shoulder-hand syndrome and the periarthritis resolved simultaneously.

The two patients shown in Figure 2 obtained the least satisfactory results in the present series. Figure 2 *A* represents a man of seventy-one with complete shoulder-hand syndrome with symptoms for ten months. After 10 days of ACTH therapy (345 mgms.) the motion at the shoulder was only slightly improved and ACTH was discontinued; symptomatically however he was more comfortable. Figure 2 *B* represents a man of thirty-six with symptoms of periarthritis of six months' duration, following trauma, with only slight motion permitted at the shoulder. This patient was given 715 mgms. of ACTH over a period of fourteen days. He soon became free from pain and was able to elevate his arm to 90°. Further improvement in motion did not occur. Therapy was stopped after fourteen days. These two patients were earlier cases in the present series. Perhaps better responses would have followed more intensive and prolonged therapy.

Figure 3 *A* represents a woman of fifty-six with bilateral shoulder-hand syndrome following trauma. The patient also had bilateral cervical ribs. Symptoms were very acute and completely disabling and had lasted for ten days. Marked restriction of motion bilaterally is indicated by the lower dark sectors. After a test dose of 25

TABLE II

	Shoulder-Hand (7 cases)	Periarthritis (5 cases)
Duration of Treatment	10 days to 99 days (Average 30.1 days)	7 days to 25 days (Average 13.7 days)
Amount of Treatment	ACTH—345-2320 mgms (Average 1020 mgms)	245-1230 mgms. (Average 625 mgms)
	Cortisone (1) 1175 mgms.	(1) 975 mgms.

mgms. of ACTH the patient became symptom-free in one and a half hours and full range of motion at the shoulders was regained. Further ACTH was withheld, and within twelve hours the patient relapsed with symptoms identical to those present on admission. She was then given small doses of ACTH for six days and as indicated in the figure she again established full range of motion and was free of symptoms. The drug was discontinued, and the patient immediately relapsed, but as shown in the figure the limitation of motion in both shoulders was somewhat less marked than the original condition. She was again given ACTH for seven days and her symptoms, both in shoulders and hands, completely cleared without recurrence. This patient has now been symptom-free for over eight months.

Figure 3 *B* shows a shoulder-hand syndrome in a woman of sixty-six who had had symptoms for six months. On admission, there was very little motion permitted at the shoulder; she also had great hand disability. Previous therapy had consisted of radiation to the left shoulder, three stellate blocks, and a surgical manipulation of the shoulder. All of these procedures had met with but little success of a temporary nature. The patient was started on ACTH and received a total dosage of 1880 mgms. in a 66-day period. She then received oral cortisone for thirteen days for a total of 1175 mgms. Although complete range of motion at the shoulder was not regained at the end of the treatment period, the patient was able to elevate the left arm to 170° and was asymptomatic except for slight flexion contracture of the fingers of the affected hand.

Figures 4, 5 and 6 represent six additional cases, the interpretation of the charts being similar to the examples already detailed.

A summary of the duration and amount of treatment in this group of twelve patients is presented in Table II. The duration of treatment averaged 30.1 days for the shoulder-hand group, and 13.7 days for the periarthritis group. If the one patient whose treatment lasted for ninety-nine days is omitted, the average duration of treatment for the other six cases was only 18.6 days. As to the amount of drug administered, in the shoulder-hand group the average was 1020 mgms. of ACTH, and one case received in addition a total of 1175 mgms. of cortisone. In the periarthritis group, the average dosage of ACTH was 625 mgms.; one patient treated with cortisone alone received 975 mgms. of this material.

We have nothing to contribute as to the possible mode of action of cortisone and ACTH in these cases. That it is more than a matter of pain relief is indicated from the studies of Grokoest, Vaillancourt, Gottsegen and Ragan[3] who have demonstrated that ACTH has no true analgesic effect. However, pain relief has been an early and striking manifestation and has permitted the early institution of intensive physiotherapy, which in turn has aided in the re-establishment of satisfactory range of motion in most instances.

It should be emphasized that all of the patients who have been treated with ACTH and cortisone have been hospitalized and have been watched vigilantly for undesirable effects. In this particular group, due no doubt to the relatively small doses applied over relatively short periods, no untoward manifestations have occurred. We should not want our results to be construed in any way as recomcending indiscriminate use of these powerful hormones. However, from the information obtained in the study of this small series of patients it would seem that ACTH and cortisone are useful adjuncts in the treatment of the shoulder-hand syndrome.

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The Etiology of Pain in Degenerative Joint Disease

By F. X. Krynicki, M.D.
Detroit, Michigan

MOST STUDENTS of arthritis and rheumatic diseases are in agreement regarding the factor of body mechanics in the etiology and treatment of degenerative joint disease. However, there is a lack of specificity in the teaching of this subject as exemplified in such expressions as, "searching for points of stress," "avoidence of trauma," "elimination of faulty posture," and "proper support of the feet." It has been difficult to find reports which have satisfactorily explained a general method for locating a point or points of stress or strain, or of avoiding trauma, unless the joints are already the seat of painful symptoms. The same holds true for the elimination of faulty posture and proper support for the feet, where these subjects are treated as generalizations or where, as in the "proper support for the feet," proper support is not accomplished. Moreover, relationships between the various factors involved are, as a rule, not explained.

That there is a close relationship between the normality of apposition of weight-bearing joint surfaces and foot posture has been shown by Laurence Jones.[4] He demonstrated that when the medial longitudinal arch of the foot moves downward to the position assumed by the flat foot, the entire leg rotates medially about its longitudinal axis. At the same time the pelvis tilts about its right to left horizontal axis, which increases the degree of lordosis. This moves the fifth lumbar vertebra, in relation to the sacrum, and then, in a diminishing gradient, all the rest of the vertebrae are moved in relation to each other up to the atlas. He calls this a serial reaction to inrolling of the foot. Raising the medial longitudinal arch causes a progressive reversal of the movements described.[8]

This mechanism, with its action on the weight-bearing joints, the soft tissues about them, and the intervertebral foramina through which the segmental nerves pass has been detailed elsewhere.[8] Suffice it to say at this time that it is an important factor in the production of pain in the weight bearing joints and in the production of segmental neuralgia where the vertebral segments are involved.

The effect of this action can be reflected, in addition, on the sciatic nerve where a small but definitive mechanical tension is evoked at the sciatic notch and the sacro iliac region. This significant action is transmitted by way of the lumbar plexus, to the cauda equina, the spinal cord, and secondarily to the autonomic ganglia. All these structures are apparently affected by the downward movement, called inrolling, of the medial longitudinal arch of the foot and can explain many painful symptoms associated with degenerative joint disease, fibrositis, and the so-called "arthralgias" of undetermined etiology.

Emphasis is placed on the proposition that whatever faults are present in body mechanics, are probably also present in all the weight-bearing joints and are not limited to the one or two joints which happen to be the seat of pain. This minimizes the need for searching for areas of stress and strain, and as a general approach in the correction of the basic factor of foot posture, we have a tendency to correct faulty body mechanics in general and therefore most points of stress, whether apparent or not. Empirical observations have been made to substantiate this thesis. It has been possible to eliminate pain in the distal interphalangeal joints, the lumbo sacral region, the spine, and in many other joints by the simple expedient of raising the longitudinal arch.*

It is felt that where adjunctive therapy was not required the irritations, stresses, and strains in and about the joints were of lesser degree, of shorter duration. In the instances where adjunctive therapy was necesssary the irritations, stresses, and strains had probably produced swellings in the soft tissues first on the microscopic levels, and then on the macroscopic levels (inflammations described by Jones), which conditions were inimical to mechanical therapy alone. Added to this, the protective mechanism of spasm[3] probably played

*A new shoe is reinforced by several layers of fiber glass fabric held together by a special adhesive element. Fairly rigid rubber devices are then inserted which raise the medial longitudinal arch to a position approaching the ideal. (The mere insertion of devices prior to reinforcement is doomed to failure.) The arch is thus supported so long as the shoes are worn. Inrolling is apparently reversible anatomically by conservative means only during the early years of childhood.[5]

a part and resulted in a vicious circle of pain-spasm-pain-spasm and so on. Introduction of intravenous procaine, intravenous pontocaine, physiotherapy, and other ordinarily used therapeutic routines was of great help, and when exhibited, the beneficial effects became relatively permanent by introducing the concommitant mechanism of raising the medial longitudinal arch.

It was noted by numerous examples that another factor is worthy of consideration in the etiology of pain in degenerative joint disease. Reference is made to the white connective tissue fibers which are important since they are so universally found in the body and since they make their presence known in many insidious ways. It is possible to passively raise the extended leg in a patient past the age of sixty to ninety degrees while it is often difficult to go over sixty or seventy degrees in a youth of twenty or twenty-five. This inability to stretch is apparently associated with an increase in white connective tissue fibers or a diminution of the yellow elastic fibers. The situation may be natural for a given individual; but trauma, excessive use, which implies trauma, or single or repeated systemic infections may play a role in the increased proliferation of white connective tissue. The white fibrous tissue in scars is but a magnified representation of this condition, and its diffuse, generalized, increase in the body is what is often referred to as fibrositis. The general occurrence of a relatively large amount of yellow elastic fibers may account for the absence of symptoms when a patient has a complete fallen arch in spite of the fact that the rest of the weight-bearing joints are in misalignment.

A localized proliferation about the intervertebral foramina may be a factor in segmental neuralgias resulting in pain in the distal ramifications of the nerve roots involved, and may explain the reason why all segments are not implicated symptomatically in the inrolling mechanism. A little appreciated example of this process is the occurrence of pain or various paraesthesias in the different parts of the hands or fingers, with pain in or about the distal interphalangeal joints, as an occasionally significant observation.

The earliest visually demonstrable change in the articular cartilage is a roughening of the surface,[7] but in truth, it must be postulated that this is merely a gross change in a process which began long before, on a microscopic and submiscroscopic level. It must be realized that degenerative joint disease, most frequently identified in the age group over forty, is a physiologic process of aging.[6] The process, however, must be assumed to have had its onset years before there were discernible roentgenographic or pathologic evidences at the level of present-day technology.

It is felt that roentgenographic manifestations of degenerative joint disease, therefore, represent the later and more advanced stages of an old process. They are evidences of degeneration only and not always the cause nor the site of painful symptoms in the clinical picture. It has been universally observed that many patients have roentgenographic evidences of degenerative joint disease as manifested, for example, by spur formation, without any painful symptoms. Were it not for the X-ray the patients would be unaware of the disease. On the other hand, many patients in this category do have pain as do those with no roentgenographic manifestations. Clinical variations such as these seem to corroborate the principle that degenerative joint disease, as such, is not always the primary cause of pain in and about joints. Simply, then, pain and not the demonstration of degeneration, is the common denominator in the two conditions. The process initiated by faulty foot posture appears to offer a rational explanation for the presence of pain in both circumstances, for when such faults are corrected, amelioration or elimination of symptoms often follows.

It is felt that faulty foot posture initiates a long process marked by pressures[2] and tensions in and about the weight-bearing joints which begins early in life. These in turn result in some damage, on the submicroscopic level, of the articular cartilage. The process continues slowly until microscopic, then gross changes become a reality. A greater or lesser degree of pain may occur depending on the stage of the process for any given individual. Eventually a steady increase in white connective tissue fibers becomes manifest and the whole process blends into and becomes part of the process referred to as degenerative joint disease. It is believed that degenerative joint disease is a factor in the production of pain only when the process becomes advanced and that many painful symptoms are due to factors essentially connected with foot posture.

This process, the foot posture and body mechanics manifold, can account for the so-called growing pains in children and the pains frequently

thought to be those of rheumatic fever but without laboratory or pathologic confirmation. It can account for the "arthralgias" of undetermined etiology, and for many of the aches and pains seen in adolescents and younger adults who are said to be outside the province of degenerative joint disease. It may account for many cases of fibrositis, especially that of the lumbosacral region. It often accounts for many cases of segmental neuralgia masked under such clinical manifestations as sternal pain, precordial pain; abdominal neuralgia apperceived as appendiceal pain; pelvic pain contemplated as "congestion of the pelvic organs," and so forth. Indeed, whenever a given pain cannot be accounted for because of its unusual position or its refractoriness to therapy, which is a daily experience in many large clinics, the causes may be searched for in the processes anteceding degenerative joint disease which are based on faulty foot posture.

Discussion

Degeneration is a physiologic process of aging which begins during adolescence and continues throughout life. It has a number of manifestations, and in the musculo skeletal system they are frequently objective, as seen, for example, in roentgenographic studies made for other purposes. The patient does not always complain of pain even when extensive spur formation appears about most articulations seen in the film. It would seem, therefore, that degenerative changes in themselves are not the single cause of pain, and that when pain does occur, it may be due to other factors.

Empirical observation seems to indicate that these factors are associated with what is generally referred to as faulty body mechanics, a term applied to an important process initiated by faulty foot posture, which affects all of the weight-bearing joints. It begins when weight bearing first occurs and continues throughout life, and thus dovetails with the degenerative process which begins later. It results in imbalanced intra-joint pressures with attendant periarticular tensions and stresses; and when these are of sufficient degree or of sufficient duration, or both, pain supervenes.

The prior existence of the second process, which overlaps and runs concomitantly with the first, explains many painful symptoms in the absence or presence of degenerative changes regardless of the age of the individual, with the exceptions noted earlier in this paper.

Summary

(1) A structural understanding of the dynamics of posture is essential for the proper interpretation and treatment of pains occurring in degenerative joint disease.

(2) Many painful symptoms in the musculo skeletal system, not accountable by known specific processes, can be due to factors inherent in faulty body mechanics.

(3) Degenerative joint disease, as such, is not the single cause of painful symptoms except in the more advanced stages of the process.

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FIRST INDUSTRIAL HYGIENE MONOGRAPH

Shortly after the invention of printing, Germany entered the field of medicine with an assortment of semi-popular treatises in the language of the people. Outstanding of this group was the pamphlet, "Van den giftigen bosen Dampfen und dem Reuch der Metalle," written in 1473 by the Swabian physician, Ulrich Ellenbog. In it, Ellenbog points out the dangers encountered by the goldsmith and tells how to investigate them. This pamphlet has the distinction of being the first industrial hygiene monograph in the literature. Because of its historical importance, the frontispiece of the publication is reproduced above to initiate a series on occupational diseases.—*Industrial Health Monthly,* September, 1951.

Levels of Plasma Beta-Glucuronidase in Rheumatoid Arthritis

By Daniel H. Basinski, Ph.D., Betsy P. Smith, Ph.D., Hsien-gieh Sie, Ph.D., and Hugo A. Freund, M.D.

Detroit, Michigan

WE WERE PROMPTED to study beta-glucuronidase by a paper by Fishman,[1] in which he related the events of pregnancy with beta-glucuronidase levels. This seemed to us suggestive because of the known remission of rheumatoid arthritis during pregnancy. If there are common factors involved, perhaps we could find a clue to some abnormality during rheumatoid arthritis which could be related to beta-glucuronidase, and in this manner give us some insight into the specific metabolic pattern of rheumatoid arthritis. In short, if we could demonstrate a different level of beta-glucuronidase activity in the blood of rheumatoid arthritis patients and relate this to the levels of beta-glucuronidase in the blood of pregnant women, we would have a tool with which to work on rheumatoid arthritis, and which we could use to inquire into the causes and the nature of the disease.

It is obvious that pregnancy is under hormonal control. It seems equally clear that rheumatoid arthritis is likewise under hormonal control. The classical demonstrations of Hench, Kendall, Slocumb and Polley[4] and the ideas of Hans Selye[7] on the General Adaptation Syndrome, offer convincing evidence that there are hormonal abnormalities in rheumatoid arthritis. Whether this hormonal difficulty is an imbalance or simply a lack of secretion is at the moment beside the point. The fact is established that there is something abnormal in the hormonal pattern of rheumatoid arthritics. It seems obvious from our own work[3] and from the work of others that we cannot arrive at this decisively by only a knowledge of the level of the 17-ketosteroid excretion in arthritics. The levels of excretion of ketosteroids which can be analyzed are low, but we do not know exactly why they are low. It has been established that urinary steroids derived from steroid hormones are excreted in the form of the glucuronides, as well as in other water-soluble forms (Lieberman et al[5]). This alone suggests a relationship to the glucuronidase. If the function of beta-glucuronidase is to synthesize the glucuronide from the hormone and the glucuronic acid present in the organism, the variation in the amount of beta-glucuronidase could be suggestive of a defect in the metabolism of the steroids under question. Since we know that in arthritic women who become pregnant, the arthritis is dramatically relieved in many cases and since Fishman has demonstraated that in pregnancy beta-glucuronidase levels go up, the connection seemed to be suggestive. If a relation between the level of beta-glucuronidase in the blood of arthritic patients and the severity of the arthritis could be demonstrated, a very valuable tool for the study of rheumatoid arthritis would be in our hands. For these reasons this study was planned.

Methods and Materials

The method for the determination of enzyme activity that we used has been published by Fishman, Springer, and Brunetti,[2] and McDonald and Odell.[6] Our method varies slightly for reasons which will be explained later. The method consists essentially in incubation of the blood sample under study with phenolphthalein glucuronide. The phenolphthalein glucuronide is split into phenolphthalein and glucuronic acid by the action of the enzyme. The phenolphthalein, on suitable exposure to a high pH, will yield a red color which is stable over a period of time and which can be read in a colorimeter. The amount of phenolphthalein released is proportional to the activity of the enzyme.

The phenolphthalein glucuronide used in this study was prepared in this laboratory by the method given by Fishman and his co-workers.[2] The method consists of injecting subcutaneously into a rabbit, phenolphthalein phosphate, which is detoxified by the rabbit to the form of the glucuronide which is excreted in the urine. This material is then extracted from the urine and purified by forming a derivative with the alkaloid, cinchonidine. Repeated recrystallization of this derivative and then hydrolyzing it to its component parts of cinchonidine and phenolphthalein glucuronide, yields a compound of adequate

From the Research Laboratory of the Children's Fund of Michigan. Funds for this investigation were provided by grants from the Michigan Chapter of the Arthritis and Rheumatism Foundation.

purity for the determination. The modification of the Fishman, and McDonald, Donald and Odell method came about because it was learned that when the enzyme reaction is stopped by the use of trichloracetic acid, part of the phenolphthalein which is formed is adsorbed on the protein precipitate, and repeated washings were found to be ineffective in removing it quantitatively. Our simple change was to omit the protein precipitation step and add the buffer (pH 10.2 to 10.4) which effectively stopped the reaction and produced the phenolphthalein color without any further manipulation. Any turbidity which was formed in this procedure was easily taken care of by centrifugation. The color formed was stable for several hours and was read in the model 14 Coleman spectrophotometer. The values so obtained were compared with the standard curve prepared by the use of known amounts of purified phenolphthalein.

Results

The results which were obtained are illustrated in graphic form in Figure 1. A total of sixteen arthritic patients and sixty-one non-arthritic office patients were studied. The non-arthritic patients are non-selected office patients in random grouping. The values on the abcissa are micrograms of phenolphthalein released by glucuronidase per 100 ml. of plasma per hour. The values range all the way from below 100 micrograms to 1200 micrograms per hour. The values in the ordinate are in terms of percentage of the total of each of the two groups of patients. It is readily seen that of the non-arthritic group the largest proportion of values fell within the range of from 100 to 400 micrograms of phenolphthalein released by the enzyme per 100 ml. of plasma per hour. Our smaller grouping of arthritic patients coincides with this value very closely. The wide spread of higher values for the non-arthritic patients represents only a small percentage of the total group of non-arthritic patients. (We have not made any inquiry into the reasons for the wide spread of the non-arthritic group since the ranges at the extreme values represent only a small percentage of the total group.)

Discussion

It is realized that a total series of sixteen arthritic patients is very small, but if there were any clear-cut differences between arthritics and non-arthritics, one would expect a difference to appear even with this small group. It is obvious that the arthritic patients have blood glucuronidase

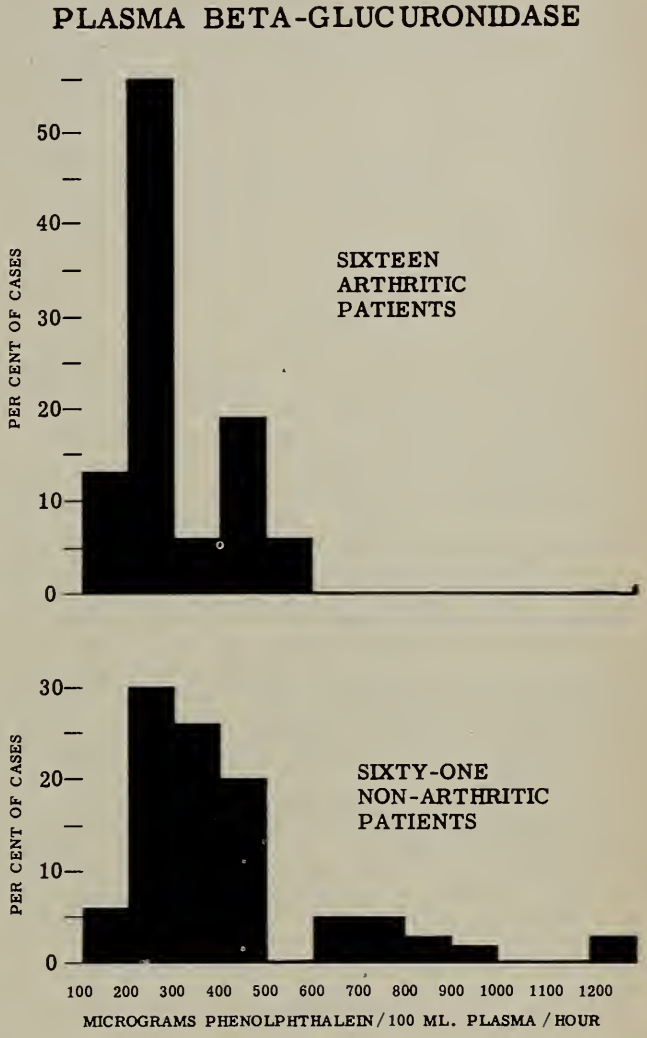


Fig. 1.

levels which correspond very closely to the non-arthritic. Our range of values for the non-arthritic patients correspond quite closely also to figures published in the literature. There is no significant deviation of the arthritic values for beta-glucuronidase in the blood from that of the non-arthritic patients. There is some tendency to be on the low side, but the values cluster around the average of the non-arthritic values. It has been found that there is a disturbed hormonal pattern in patients with rheumatoid arthritis, but from these figures it seems that there is no relation of this fact to that of the level of beta-glucuronidase in the blood of such patients.

Summary

There are no significant deviations from the beta-glucuronidase activities observed in non-arthritic patients. There is some tendency for the results of the over-all picture to be somewhat lower than in the non-arthritic group. However, the clustering of the data is definitely around the average of the non-arthritic group. It seems evident therefore, that the reason for the abnormalities of rheumatoid arthritis must be sought elsewhere. The hormonal pattern is disturbed, but the beta-glucuronidase does not seem to bear any relationship to this picture.

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SECRETION OF OXYSTEROIDS

(Continued from Page 1022)

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Maternal Mortality Case Report

The patient, twenty-eight-years old, primigravid, American Indian at term was admitted to the hospital per ambulance semi-comatosed and having almost continuous tonic and clonic convulsive seizures. Her blood pressure on admittance was 260/170.

P. H.—Patient had not seen a physician during the entire course of pregnancy and had received no prenatal care. She had appeared well until 3½ hours before admission to the hospital at which time she experienced her first convulsion.

Course.—Consultation was called immediately after admission and vigorous eclamptic therapy, consisting of heavy sedation, i.v. $MgSO_4$ and i.v. 10-20% Glucose instituted. Convulsions were controlled but the patient's coma deepened and she expired undelivered within 24 hours of admission. A macerated 8 pound deadborn infant was delivered by postmortem Cesarean section.

Comment.—The reviewing committee declared this case to be a preventable maternal death due to eclampsia. Responsibility was charged directly to the patient and her relatives for not obtaining prenatal care which was available.

Report of Committee on Maternal Mortality, Michigan State Medical Society.

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THE DOCTOR'S INCOME

New light is cast on the earnings of doctors by a survey conducted jointly by the Department of Commerce and the American Medical Association. It shows that the average physician earns $11,058 yearly before income tax is paid. That doesn't, of course, include any unpaid bills on his books.

Because of a concentration of physicians in large cities, the doctor there earns, on the average, less than doctors in any other community size except villages of less than 2,500. Pennsylvania doctors average $10,047 and those in New Jersey $9,690. In New York the figure is even lower. Eight per cent of all the doctors made $25,000 or more, and 13 per cent had less than $3,000 a year net.

All of which contradicts a picture so frequently painted. Doctors with huge incomes seem the exception rather than the rule. Considering the fact that a doctor needs to spentd at least four expensive and important years more in college than entrants into most other professions, the yield is not exorbitant. A bricklayer who put in as much overtime as most general practitioners would earn more.

The figures are important at this time, when a shortage of doctors is so much discussed. The incomes do a lot to explain the shortage.—Editorial, *The Sunday Bulletin* (Philadelphia), *July 29, 1951.*

Your Government and You

By Carlton Morris, Senator
Kalamazoo, Michigan

TWO THINGS are of the highest importance to you as to every other citizen, your government and you. The general conclusions which I shall draw in this talk today are applicable to any citizen and to any form of representative government which we have in the United States, whether the same be federal, state or local.

You are, as am I, proud of the form of government which we have and which we are. No Government, however, is perfect, and while we think that we have the most perfect form of government, it is only so perfect as we make it.

Immorality in Government

There are some things about our government about which we are not so proud. To mention two, we are not at all proud about the type of immorality which we have found in government on a national level recently, which involves such things as fur coats, freezers, collecting by elected congressmen of kick-backs from their office help or collecting by congressmen or friends of congressmen of percentages on such things as war contracts. These things we are not only not proud of, but detest.

Indifference to the Threat to Our Form of Representative Government

In like manner, we are not too proud of the manner in which threats to the basic form of our representative government have been handled in the past several years. While the average citizen has been seething because nothing was done about communists in government, officialdom in Washington and Congress seem to be engaged in various wrist-slapping episodes behind which there seems to be a casual indifference as to the importance of Communists in Government and in the country. It is only recently as the public has become aroused over the matter of communism, that more effective steps have been taken to deal with Communism. This was accomplished partially by the fact of the Korean War and partially by the fact that they have gained a greater understanding of the nature of Communism and of the fact that Communism basically and inherently cannot contract and cannot enter into treaties to which any reliance can be given with other countries without rejecting the basic tenets of Communism which are complete world domination and the application throughout the world of all the theories upon which it is founded.

The Basis of Good Government—An Informed, Interested Citizenry

The basis of the immorality of which I have spoken and the indifference to which I have referred is the citizen himself. In a Republican form of government, the premise is fundamental that the people are the government. All powers are derived from the people. The state is the people.

From what I have said, you can draw the natural and logical conclusion that your government is still what you and other citizens like you make it. If you have no interest in it, it will do one of two or both things. It will continually become larger and larger until it runs the citizen rather than the citizen running the government, or ever if it does not become larger it will usurp more and more power until it runs more and more of the individual citizen's life anyway. The answer is an informed, interested citizenry.

It is entirely proper that groups of citizens join together for their mutual protection. It is entirely proper that the MSMS do so. To do that, however, the Michigan State Medical Society or any other group of citizens, must have the interest of not only the top leaders of their group but the interest of every member of their group. Each member must be working not only with their elected representatives in government but with their fellow citizens and fellow voters.

Politics is Government and Government is Politics

Interest in actively taking a part in government by private citizens has often lagged because of the misconception some people have that all politics are crooked. A more improper and harmful misconception to the cause of good government has never been advanced. Politics will be crooked only to the extent that you and other citizens like you allow it to be. Actually, although I am myself a lawyer, and, as such, a member of a profession, it has always been my conception that "There is no higher profession than politics when properly prac-

Address to The Council and other groups at the summer meeting, July 3, 1951.

ticed." Politics is government and government is politics. For a person to say that they are interested in good government but that they are not interested in politics makes about as much sense as to say that they believe in going to church but that they don't believe in God.

The Basis of Good Government—An Informed Interest of the Citizen in Politics

Interest in politics then, or interest in good government is something that is not below you but above you and not beyond you if you will aspire to attain it. You have often heard the saying "To thine own self be true." To be true to yourself, you must be true to your govrnment, for as I said you and your government are one. To be true to your government you must be interested and informed.

At this point you may well ask why I keep harping on the word "informed." The answer is that all the interest in the world is relatively unimportant unless you are informed, (1) because interest is of no value unless it is an intelligent interest and (2) because no interest will be sustained or continuous unless it is informed.

What does being informed include? It includes an understanding of your own profession's problems *per se* and in addition an understanding of how those problems fit in with problems of other citizens in the country and how both your and their problems fit into a free and representatively governed United States.

Your good government campaigns are fine as are the other like activities in which you have engaged. You are to be complimented on the interest you have shown in doing something about your government rather than indulging in the "let George do it" philosophy.

You have found that you can be effective, but I believe you will also concede that the extent of your effectiveness can be multiplied many times by a greater understanding, on the part of your members, of government and a greater interest in it.

The Legislative Body Must Be Informed and Interested as Well as the Citizen

Your legislative representatives in Lansing have been most helpful to the State Legislature in keeping it informed of legislative problems. Their handling of legislative problems, in my opinion, have been co-operative and effective. They are, so to speak, your personal expression of opinion to the various legislators and they are the constant source of information leading to an informed and interested Legislature. They, too, are a factor in good government, for the value of an informed and interested public is lessened unless you also have an informed and interested Legislature.

Summary

In summation, I would say that your government, speaking of it collectively, has had too much of immorality and indifference connected with it. You and every other citizen are the ones who must accept the blame for it. The cure is an informed and interested public of which you are a part and you must accept your share of the responsibility. To the extent that you become interested and informed you become active in politics which in essence is government. To the extent you become active in politics or government which are synonymous, you will find that "There is no higher profession than politics when properly practiced." And once you have become active enough to find that out, you will be entitled to call yourself a "Good Citizen."

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POLITICAL MEDICINE

In dedicating a new $40 million government medical research center at Bethesda, Md., President Truman got in another plug for one of his pet state welfare projects, compulsory "national health insurance."

He said that many people couldn't afford to buy insurance in one of the non-profit health insurance organizations.

These plans charge exactly what they need to meet their claims. It is not even argued that a government bureaucracy could do business cheaper than a private company.

It follows that if an individual can't afford a private health policy, he cannot afford to pay a government agency the true cost of his insurance. Mr. Truman knows this quite well. In essence, what he proposes is high taxes on some people to pay for those who contribute less than cost.

This is a wealth-sharing scheme, a system of political medicine under which medical care would be conducted with the same efficiency as the post office. It is a plan for new taxation, and to call it "insurance" is a fraud.—Editorial, *Chicago Daily News,* July 19, 1951.

Treatment of Trichomonas Vaginalis Vaginitis

By R. B. Kennedy, M.D., F.A.C.S.
Detroit, Michigan

OF ALL THE problems confronting the gynecologist, perhaps the most widespread, persistent and recurrent is infection due to *Trichomonas vaginalis.*

This condition, a source of great annoyance and discomfort to the patient, is often refractory to the usual methods of treatment, with the likelihood of reinfection obviating whatever initial therapeutic success may have been attained.

I have recently used, with noteworthy results, a vaginal capsule* containing the potent trichomonacide, chiniofon, 0.33 gm., in combination with a wetting agent, sodium lauryl sulfate, 0.12 gm. These results were accomplished by employing a low surface tension medium for the drug, which gives a much greater dispersion throughout the surface area and more thorough penetration of the folds of the vaginal mucosa, thus enhancing the effectiveness of treatment.

The striking therapeutic response obtained in a series of eighty-one patients treated to date is indicated by the fact that at the end of the first week, when all patients were instructed to return for examination, 100 per cent were found to be completely relieved of symptoms and irritating discharge.

Method of Treatment

First Week.—All patients are instructed to use an astringent acid douche† every morning and to insert a capsule high in the vagina at night before retiring.

Second Week.—Patients are instructed to insert a capsule every other night and to douche the following morning.

Subsequent Treatment

The interval between treatments is gradually lengthened to three or four days, to be continued for a period of six weeks.

As a prophylactic measure, patients are instructed to take a douche as soon as menstruation ceases and to insert a capsule at night for two successive nights each month for a period of six months.

In all cases of *Trichomonas vaginalis* associated erosion of the cervix or endocervicitis are treated concurrently. It is essential that the cervix be treated and cleaned up to ensure successful therapy of the infection. If the patient continues to have recurrences after the cervix has been treated, drugs are given to destroy the organism in the bowel.

Treatment of Recurrent Infections

One of the difficulties in treating trichomonal infections is the ease with which reinfection takes place, thus making a certain number of recurrences inevitable. In the event that reinfection occurs, the foregoing method of treatment is repeated in its entirety. Every patient should be thoroughly informed regarding the etiology of the infection in order to reduce the possibility of recurrences to a minimum. It is generally agreed that the following are the most common factors:

1. The patient may become infected during intercourse by the penis coming in contact with the rectum, thus introducing the organisms into the vagina.
2. The patient may infect herself through improper toilet habits, i.e., wiping the anus toward the vulva instead of away from it.
3. Another cause, perhaps less frequent than the others, is using the same nozzle for douching and enemas without carefully sterilizing it.
4. The husband may become infected from his wife's vagina. He may get the organism in his prostate and seminal vesicles and become a carrier. As a result he will re-infect his wife at each intercourse.

If the organism is found in the urine, the urethra should be dilated and the bladder treated with argyrol. In all refractory cases, as has been stated, medication should be given to destroy the organism in the bowel.

Side Effects

No serious side effects or untoward reactions were noted in this series, with the exception that approximately 25 per cent of the patients complained of varying degrees of irritation of the vagina and vulva. This was eliminated in most cases

(Continued on Page 1081)

*Almetrifon capsules supplied by courtesy of Meyer Chemical Company, Detroit 24, Michigan.

**Almetrifon Tablets (Meyer) contain 0.33 gm. chiniofon and 0.04 gm. sodium lauryl sulfate.

†Formula of douche: zinc chloride, 1 oz.; phenol, 2 oz.; glycerin, 7 oz.; distilled water to make 16 oz. Sig: 1 tablespoon to each quart of water.

The Michigan Postgraduate Program in Medicine — Fall 1951

Extramural Courses

The Michigan State Medical Society, in co-operation with the University of Michigan Medical School, Wayne University College of Medicine, and the Michigan Department of Health announces the extramural postgraduate program for the fall, 1951.

Centers	Dates
Alpena	October 11
Battle Creek	October 2
Bay City	October 10
Jackson	October 16
Lansing	October 25
Midland	November 14
Mt. Clemens	October 3 and November 7
Muskegon	October 31
Traverse City	October 11
Upper Peninsula:	
Sault Ste. Marie	November 5
Escanaba	November 6
Menominee	November 7
Iron Mountain	November 8
Marquette	November 5
Houghton	November 6
Ironwood	November 7

Intramural Courses

Clinical Internal Medicine (Thursdays)	University Hospital, Ann Arbor	Oct. 4, 1951-Apr. 17, 1952
Clinical Exercises for Practitioners (Wednesdays)	University Hospital, Ann Arbor	Oct. 10-Dec. 19, 1951
Diagnostic Methods. Clinical and Laboratory Interpretation	University Hospital, Ann Arbor	Oct. 23-26, 1951

The printed program will be mailed to members of the Michigan State Medical Society.

H. H. Cummings, M.D., *Chairman*
Department of Postgraduate Medicine
2040 University Hospital
Ann Arbor, Michigan

Family Physician is Central Figure in MRFCP

The family doctor is the person best qualified to care for the individual patient. This is the philosophy of the Michigan State Medical Society. All of its activities are directed to this end.

A timely example of this is the Michigan Rheumatic Fever Control Program. It was established and has continued under the major premise that the family physician is and must remain the central figure in the plan. The program is beamed at the patient through the family physician. It is a highly specialized postgraduate undertaking whereby both physician and patient understand the total problem of the disease: the care, education, rehabilitation and job placement within the capabilities of the individual patient's heart. The physician—as the central figure—sees the whole patient and the whole problem. He brings to bear all the specialized services the community has to offer. The main purpose of the plan is the education of the physician in the intricacies of a disease which is not yet completely known, for from this improved understanding comes the best possible care of the patient.

It appears that the governmental approach to this problem is quite different. It is beamed at the patient only. Without correlation he is exposed to many part-trained or untrained individuals who have no over-all concept of the disease. Nobody gains from this but the statistician.

The continued growth of the Michigan Rheumatic Fever Control Program is dependent on the increased understanding and support given to it by every member of this Society.

Otto O. Becke

President, Michigan State Medical Society

President's



Message

Editorial

MICHIGAN CLINICAL INSTITUTE
DETROIT—March 12-13-14, 1952

RHEUMATIC FEVER AND ARTHRITIS

CARRYING OUT the plan of the Michigan State Medical Society to make certain numbers of our JOURNAL an exposition of some major activity of the Society or various of its committees the September 1951 number is devoted to *Arthritis and Rheumatism*. We are presenting herewith fourteen papers on those subjects, making this again an entire issue devoted to the various phases of one disease type. The papers were assembled by James J. Lightbody, M.D., of Detroit, and the editor congratulates him on a well-conceived and well-executed task.

The modern and newest treatment, the use and results of ACTH and cortisone, are portrayed in their most recent and up-to-date concepts. Many of these papers are so recent that they were written during July and August, 1951. Announcement has since been made of new methods of preparation of cortisone from a group of common substances, and by comparatively simple methods, instead of the involved preparation from ox gall that up to now has been the source of these scarce substances.

We commend the material of the September JOURNAL to all our readers as a sample of precise reporting.

Well done, James Lightbody!

MEDICAL INCOMES—TAKE HOME PAY

MUCH HAS BEEN SAID in recent years about the excessively large incomes of certain of the medical profession. Reports have been published many times which have led people and the profession itself to believe the truth of these statements. We have cautioned our readers to stop considering their income in figures of gross intake, but to take a leaf from labor and consider only "take home pay," which incidentally is "after taxes."

THE JOURNAL of the Michigan State Medical Society in two recent articles by Messers. Black and Skaggs invited attention to this subject in a challenging manner. They took averages from groups of established Michigan practitioners obviously of the higher income groups because they were using management advice and benefits. These articles reported net incomes before taxes. There were some under $10,000, and some over $25,000, but the vast majority were within those limits. These authors observed that doctors would be much more attentive to outgo and miscellaneous spending if they were more familiar with the net figures (the take-home pay) instead of the much larger sums of money they are handling.

The long-awaited report of the survey of 55,000 medical incomes by the Bureau of Medical Economic Research of the American Medical Association and the Office of Business Economics of the Department of Commerce gives an average net income before taxes of $11,058. This is an increase of 150 to 170 per cent over the 1935-39 level. The national income of the American people was 224 per cent higher in 1949 than for the period 1935-39.

According to the Bureau of Labor statistics, the fees of physicians were 38 per cent higher in 1949 than in the base period. The greater incomes, therefore, are accounted for by improved collections, smaller percentage of charity patients, but principally by a greater output per physician. Doctors with large incomes do not follow a "five-day and eight-hour" regime. Their income increases with their willingness to work—maybe sixteen or eighteen hours a day.

The oft heard comment that doctors' incomes are out of proportion does not seem to be borne out by the facts. The incomes have increased less than those of the general public by a considerable margin. We repeat, the doctor handles more money than labor, but in the end he does not have a great deal more left. He considers gross receipts, and the man on the street only recognizes "take-home pay."

Our doctors could well serve to improve public consideration by repeating these facts to their friends and patients. Especially members of labor unions

and the press should be better informed by direct quotation and illustration.

NEW TYPE OF CO-ORDINATED TEACHING AT 1952 MCI

THE SEPARATE and unrelated lectures of past Institutes have come to an end.

A new type of program—featuring co-ordinated teaching periods—will make its appearance at the Michigan Clinical Institute of March 12-13-14, 1952, Book-Cadillac Hotel, Detroit.

The following interesting schedule has been developed by the MCI Program Committee:

Wednesday Morning, March 12
Six integrated *surgical* subjects.

Wednesday Afternoon, March 12
Two *obstetrical* and four *pediatric* subjects (including a panel on The Deviated Child).

Thursday Morning, March 13
Six integrated *medical* subjects.

Thursday Afternoon, March 13
Miscellaneous subjects, such as chemotherapy, geriatrics, neuralgia, tuberculosis, uses of local anesthesia, and vertigo.

Friday Morning, March 14
Six integrated *heart* subjects.

Friday Afternoon, March 14
Six integrated periods on *metabolic diseases.*

Three Luncheon Meetings

Wednesday, March 12
Sykes Lecture: "Differential Diagnosis of Cancer"

Thursday, March 13
Howard A. Rusk, M.D., New York: "Rehabilitation."

Friday, March 14
Annual Heart Luncheon
(With election of officers of the Michigan Heart Association).

This organization of co-ordinated teaching periods will permit the presentation of an educational program for general practitioners and other medical men that is without parallel among postgraduate clinical conferences and state medical conventions.

ALWAYS OUR VERY BEST

A TRUE MEDICAL man constantly has the best interests of his patient uppermost in his mind when making diagnoses and when prescribing treatment. That is a fundamental requisite of good practice and good public relations. In looking for new and better methods, we must try many things and occasionally stop to evaluate. We must willingly or ruthlessly discard the procedure or method which failed or has proven not sufficiently advantageous.

Michigan Medicine, through the action of the Mental Hygiene Committee of the Michigan State Medical Society, has just completed such a re-evalution. The Committee has made its report in the form of the following resolution, which, as customary, has been submitted to The Council. After due consideration, the resolution has been approved and ordered published to the members of the Society.

Resolution

WHEREAS the .....CO_2 method of psychiatric treatment appears to have shown no superiority over more widely accepted methods, and

WHEREAS this method of treatment is not without potential danger to the patient, so that certain precautions ought to be observed to prevent fatal accidents, and

WHEREAS this method of treatment has become popular with unqualified practitioners, therefore be it

RESOLVED that the Mental Hygiene Committee of the Michigan State Medical Society recommend to the Council of the Michigan State Medical Society that the potential dangers of the .....CO_2 treatment be emphasized to the medical profession through THE JOURNAL of the Michigan State Medical Society.

The background of this action:

The use of metrazol and insulin in the treatment of mental illnesses has led to investigation of many other drugs. Among these was CO_2 which was first reported in 1929 but was not used for neuroses until 1947. Since then, CO_2 treatment has come into extensive use. It has been recommended for its striking value in general medical practice, as well as for the specific treatment of peptic ulcers, colitis, and various aches and pains. The literature clearly indicates that this type of treatment is an office procedure and can be used with little in the way of equipment. Furthermore, it is implied that little knowledge of psychiatric diagnosis or of psychotherapy is required.

The method of treatment consists of the inhala-

tion of high concentrations (20 to 30 per cent) of CO_2 mixed with O_2. Symptoms appear with six to ten respirations, and between twenty and thirty respirations, tremors, tetanoid spasms, athetoid movements and rigidity appear. Continuation may produce decerebrate rigidity with epileptoid attacks appearing on resumption of respiration of room air.

Profound effects on cerebral tissue with even one such experience are apparent. With frequent repetition it would seem likely that irreversible changes in brain tissue might well occur. Fatalities have been experienced and reported in Michigan. Clinical experiences with suffocation and milder forms of anoxia make it clear that such therapy is neither simple nor safe. This method offers few advantages over the more widely used procedure. The admonition to limit such procedures to the proper surroundings and to experienced Doctors of Medicine would appear needless, but nevertheless urgent.

The cautious use of this treatment under the conditions just stated is not under ban by the committee or the council.

In patients with jaundice, routine examination should include search for a left supraclavicular node, metastases around the umbilicus and x-ray alteration of the rectal shelf.

* * *

Because penicillin increases the coagulability of the blood it should not be used for the fever that accompanies thrombotic episodes, particularly coronary thrombosis.

* * *

High pressure oxygen therapy appears to be useful in carbon monoxide poisoning as well as in other conditions in which the transport of oxygen by hemoglobin has been disturbed.

* * *

Ascites in Laennec's cirrhosis does not always mean a poor prognosis.

* * *

Indications for premature delivery of diabetic mothers are early signs of toxemia, frequent attacks of ketoacidosis and a large fetus.

* * *

Clinical signs of excess circulating adrenalin, as in pheochromocytoma, are low grade fever, elevated blood sugar and basal metabolism, excess sweating and peripheral vasomotor disturbance, tachycardia and hypotension on assuming the upright position.

Selected by W. S. Reveno, M.D.

ORAL CORTISONE

(Continued from Page 1037)

of T-waves and ST-segment depression can be seen. It is certainly unwise to use cortisone, orally or parenterally, in cases with lowered cardiac reserve, in psychotics with overt or latent symptoms, in diabetes, in renal disease with evidence of insufficiency, and in cases with fresh surgical wounds.

Summary and Conclusions

1. A series of eight patients, treated with oral cortisone (Cortone, Merck) is reported.
2. Oral cortisone appears to be of definite therapeutic value in producing marked relief of symptoms in rheumatoid arthritis, and moderate relief of symptoms in two of three cases of osteoarthritis.
3. The effect of oral cortisone on atopic eczema and multiple sclerosis is also discussed.
4. Cautious use of this potent drug is emphasized, and it is urged that close contact with the patient be maintained, as well as vigilance for possible untoward physiologic side-effects.

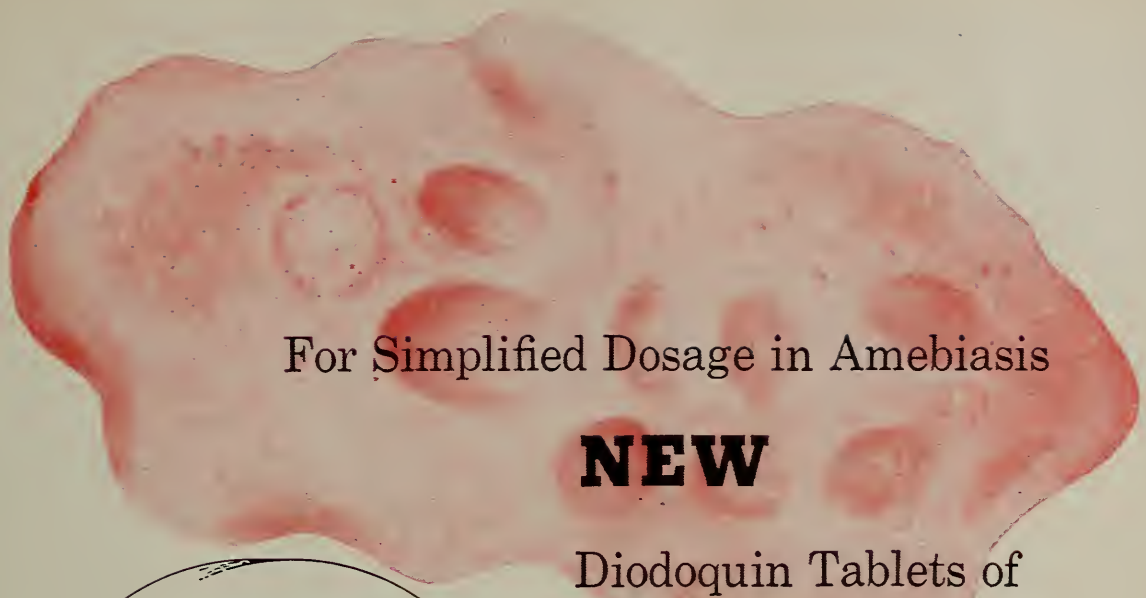
From the Department of Internal Medicine, Highland Park General Hospital, Highland Park, Michigan.

References

1. Dale, M.: Treatment of osteoarthritis with ACTH. J. Michigan M. Soc., 49:1068-1069 (Sept.) 1950.
2. Selye, H.: Stress, p. 678. Acta, Inc., 1950.
3. Steinbrocker, Otto: Annals of the Rheumatic Diseases, Vol. 9, No. 4, December, 1950; Proceedings of the Annual Meeting of the American Rheumatism Association, 1950.

MSMS

The Michigan State Board of Registration in Medicine, 203 Hollister Building, Lansing, Michigan, announces the October examination to be held in the Senate Chamber of the State Capitol on October 10, 11, and 12, beginning at 8:30 A.M.



For Simplified Dosage in Amebiasis

NEW

Diodoquin Tablets of

10 GRAINS

(650 mg.)

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With the introduction of a new 10-grain (650 mg.) tablet of Diodoquin, the number of tablets necessary for treatment of amebiasis can be reduced from ten a day to three a day.

Thus the twenty-day recommended dosage schedule is accomplished with a total of 60 instead of 200 tablets. The cost to the patient is reduced accordingly.

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A potent oral amebacide— **DIODOQUIN®**

(*diiodohydroxyquinoline*)

—is a well-tolerated, relatively nontoxic compound containing 63.9 per cent of iodine.

Now available in tablets of:

3.2 grains (210 mg.), bottles of 100 and 1,000
10 grains (650 mg.), bottles of 60 and 500

Be sure to prescribe the 10 gr. (650 mg.) size for full adult dosage.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

CAUSES OF DEATH, 1950

Heart disease, cancer, apoplexy and accidents accounted for nearly 70 per cent of all deaths which occurred in Michigan in 1950, according to provisional figures.

The "fatal four" have headed the major causes of death in Michigan for the past twenty years.

Heart disease killed one out of three; cancer, one out of seven; apoplexy and related causes, one out of nine; and accidents, one out of 15 of all who died in the state in 1950.

The other six major causes of death which accounted for 13 per cent of the 1950 total deaths were so close together that their positions were relatively insignificant, the Department said.

Causes of death for 1950 were classified in accordance with the Sixth Revision of the International Classification of Causes of Death, which includes nearly 1,000 different causes in comparison with the previous 200 causes. Thus, the ten leading causes of death for 1950 cannot be readily compared, numerically, with those of previous years.

The ten leading causes of death for 1950, based on provisional figures, follow:

	Cause	*Number*
1.	Diseases of the heart	20,521
2.	Cancer (Malignant Neoplasms including neoplasms of lymphatic and hematopoietic tissue)	8,685
3.	Apoplexy (Vascular lesions of central nervous system)	6,376
4.	Accidents	3,783
5.	Pneumonia and Influenza	1,481
6.	Diabetes Mellitus	1,438
7.	Arteriosclerosis	1,296
8.	Tuberculosis	1,270
9.	Immaturity at birth (prematurity)	1,096
10.	Nephritis and nephrosis	1,004
	Total (10 causes)	46,950
	All other causes	10,617
	TOTAL DEATHS	57,567

* * *

Significant numbers of Armed Forces personnel from Korea are experiencing attacks of vivax malaria after their return to this country and while they are not under military supervision, i.e., while they are on leave or after separation. Presumably these infections were acquired last fall, though in some instances it is probable that symptoms were not manifested until this spring due to prolonged incubation or the effects of suppressive medication.

Practicing physicians will suspect malaria among patients presenting suggestive signs and symptoms, and who have been in Korea during the last year. Definitive diagnosis should be based on the demonstration of malarial parasites in qualified laboratories. Where blood findings are positive, controversial, or uncertain, the slides should be sent to the Laboratories of the Michigan Department of Health.

* * *

During the past few months the Division of Disease Control, Records and Statistics has received from physicians and parents many complaints and queries regarding failure of the parents to receive a Notification of Birth Registration.

Budget cuts made it necessary for this Department to discontinue the practice of routinely mailing Notifications of Birth Registrations to parents of newborn babies last year.

This Department will furnish a Certificate of Birth Registration to any parent who writes, giving the full name, date and place of birth of the child and enclosing a fee of twenty-five cents. These Certificates of Registration are sufficient for entering the child in school and for obtaining a working permit when the child becomes of working age. Certified copies of birth certificates can also be obtained from this department. The fee for a certified copy is one dollar.

Four of the Michigan Department of Health's tax-supported mobile x-ray units are visiting twenty-three county and state fairs this summer as a part of the state tuberculosis case-finding program.

Young housewives and men over forty, among whom the greatest incidence of tuberculosis is now being found, are especially urged to take advantage of the service. All persons fifteen years of age and over may have chest x-rays at the fairs. There is no charge.

More than 2,500 cases of tuberculosis have been found among the 195,000 persons x-rayed at fairs in the past four years. Last year five units visiting thirty-one fairs made 56,658 x-rays, 1,087 of which showed some chest abnormality and 519 indicated tuberculosis.

Quiz machines on venereal disease facts are accompanying the Michigan Department of Health mobile x-ray units to many Michigan fairs this summer.

* * *

Ways of providing better food in hospitals, homes for the aged and child care institutions in spite of the shortage of trained food service personnel and the high cost of food and labor were studied by 396 administrators and food service personnel who attended six Regional Food Service Institutes held in June. These people are responsible for 49,000 meals a day in 111 Michigan institutions. The institutes were conducted by the Sections of Nutrition and Sanitation and the Hospital Nursing Consultant Services of the Michigan Department of Health, the Michigan Dietetic Association and the Hospital Division of the W. K. Kellogg Foundation.

* * *

A venereal disease control project which has national and possible international implications is now being set

(Continued on Page 1062)

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S-M-A, diluted and ready to feed, provides in each quart the following proportions of the minimum daily requirements for infants.

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VITAMIN D 800 U.S.P. units	200%
THIAMINE 0.67 mg.	250%
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VITAMIN C 50 mg.	500%
NIACINAMIDE 5 mg.	—

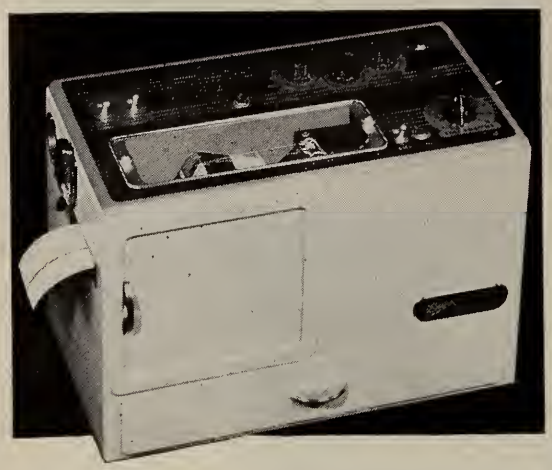
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(Continued from Page 1060)

up in the Detroit Metropolitan Area through the co-operation of the Michigan Department of Health, the Detroit City Health Department and the Public Health Service.

Venereal disease field representatives will be given special training in contact interviewing and investigation operation out of the Social Hygiene Clinic of the Detroit City Health Department under the direction of Dr. Loren Shafer.

While the investigators are in training, their work will intensify the contact investigation in one of the nation's major defense and military areas where a continued influx of transient impermanent labor can be expected to result in an increased venereal disease rate. The project may point the way for control in other critical defense areas, in addition to training investigators for work in these areas of the state and nation.

* * *

Kenneth A. Easlick, D.D.S., Professor of Dentistry in the School of Dentistry and Professor of Public Health Dentistry in the School of Public Health of the University of Michigan, has been reappointed to the State Council of Health. The reappointment was announced by Governor Williams on August 2.

* * *

A total of 105,499 Michigan school children were screened by the Massachusetts Vision Text during the past school year. This is in addition to thousands given Snellen tests. The screening was done by local technicians trained in the Vision Conservation Program of this Department.

* * *

Governor Williams, on July 11, announced the reappointment of Dr. Albert E. Heustis as State Health Commissioner for a term expiring June 30, 1955.

* * *

ACTH AND CORTISONE IN THE TREATMENT OF THE SHOULDER-HAND SYNDROME

(Continued from Page 1044)

5. Steinbrocker, Ott; Guck, John; Vetter, Joseph, and O'Connor, Robert: ACTH in the shoulder-hand syndrome (reflex dystrophy). Proc. Second Clin. ACTH Conference. Therapeutics, 2:706-710. Philadelphia: Blakiston Co., 1951.
6. Steinbrocker, Otto; Spitzer, Norman, and Friedman, Harold: The shoulder-hand syndrome in reflex dystrophy of the upper extremity. Ann. Int. Med., 29:22-52 (July) 1948.
7. Swan, Daniel M., and McGowan, John M.: Shoulder-hand syndrome following myocardial infarction. J.A.M.A., 146:774-777 (June 30) 1951.

Say you saw it in the Journal of the Michigan State Medical Society



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The instinctive choice of meat as man's favorite protein food has behind it sound nutritional justification.*

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The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

*McLester, J. S.: Protein Comes Into Its Own, J.A.M.A. *139*:897 (Apr. 2,) 1949

American Meat Institute

Main Office, Chicago...Members Throughout the United States

Head Pain as a Diagnostic Lead

Frequently the presence of head pain is overlooked. The physician learns of it only if he has made an effort to elicit the information. Since the etiology of the pain is the basis of rational management, the patient should be warned against taking medication before diagnosis is made.

Friedman[1] deplores the tendency to call any chronic recurring headache migraine. Careful history-taking and full physical and neurological examinations are essential for accurate diagnosis. A good starting point is a description of the headache — its character, laterality, frequency and intensity.[2]

The following chart gives briefly the primary diagnostic leads and treatment for the most common types of headache.

Etiology of Headache	Primary Diagnostic Data	Primary Therapy
Inflammatory e.g., Meningitis Abscess	Inflammation of intracranial structures; fever; leucocytosis; bacteriologic diag.	Specific: sulfonamides and antibiotics. Symptomatic: analgesics.
Tumor	Pain varies as spinal press. changes; skull X-ray.	Specific: surgery. Symptomatic, analgesics &/or hypnotics.
Sinusitis	Sinus congestion and infection; cloudy X-ray.	Specific: antibiotics and drainage. Symptomatic: analgesics.
Hypertensive	Hypertension present but pain not related to b.p. level; Dihydroergotamine. relieves pain.	General hypertension therapy; sedation. Symptomatic: analgesics.
Migraine & other vascular headaches	Headache: recurrent, intense, throbbing. No organic causation; migraine in family; patient: energetic, perfectionist. Visual prodromata; g-i. upset during headache.	To abort attack: oral ergotamine plus caffeine. General: adjustment to minimize nervous stress.

Data here tabulated is from: Wolf, G., Jr.,[3] and Friedman, A. P.[4]

Cecil[5] ranks vascular headaches, e.g., migraine and tension headaches, as the most commonly encountered of all. Because of their functional nature and usual recurrence at frequent intervals, they present a long-term therapeutic problem.

Therapy is conducted along two lines:

1) Psychotherapy to reduce the frequency of attacks. This consists mainly of advice on emotional adjustment to stressful situations and guidance toward a good balance between work and relaxation.

2) Treatment of the distressing attack to prevent the usual period of incapacitation. Many investigators have reported that ergotamine preparations are effective for relief of the acute migraine attack in 80% of cases.[1,6] *The drug is given immediately when an attack is approaching and dosage adjusted to the needs of the individual.*

1. Friedman, A. P. and von Storch, T.: 99th A.M.A. Session, June 1950. 2. Butler, S. and Hall, F.: M. Clin. N. Amer., p. 1439 (Sept.) 1949. 3. Wolf, G., Jr.: M. J. 54:25, 1951. 4. Friedman, A. P. and Conn, H. T.: Current Therapy, 1950, p. 563; Saunders Co., Phila. 5. Cecil, R. L.: A Textbook of Medicine, ed. 7, 1948, p. 1483; Saunders Co., Phila. 6. Horton, B. et al: Staff Meet. of Mayo Clinic 20:241, 1945.

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Communications

LIBERALIZING OF BLUE CROSS-BLUE SHIELD BENEFITS

Dear Doctor:

Since October 1, 1950, Michigan Medical Service has provided benefits for certain specified surgical procedures when done in the doctor's office or the out-patient department of a hospital. The procedures referred to are those described in "Office Surgery Liberalization" dated October 1, 1950, a copy of which was sent to all doctors on August 23, 1950.

This letter is to inform you that, effective July 1, 1951, Michigan Hospital Service will provide benefits for the same procedures, when performed in the hospital out-patient department. In addition, Michigan Hospital Service will provide out-patient hospital benefits for application of cast or splint in cases of club feet, which procedure is not specifically included in the surgery liberalization referred to above.

One purpose of this change is to bring the Michigan Hospital Service benefit policy more nearly in line with that of Michigan Medical Service, and thus to avoid confusion and misunderstanding among all segments of the public which we serve. An additional reason is the possibility that in-patient utilization may be reduced to some extent, with consequent savings in cost to the public. If the experiment is successful from this standpoint, we will consider the addition of other procedures to the list to whatever extent seems advisable.

Very truly yours,
E. D. Barnett, M.D.
President

* * *

Dear Dr. Haughey:

I would like to take this opportunity of congratulating you on the June issue of The Journal. It is with a great deal of pride that we are forwarding a copy of this issue to all Blue Shield Plans, as an outstanding example of physician co-operation.

I certainly enjoyed visiting with you in Atlantic City at the AMA meeting. I expect to be in Grand Rapids in September, and am looking forward to seeing you then.

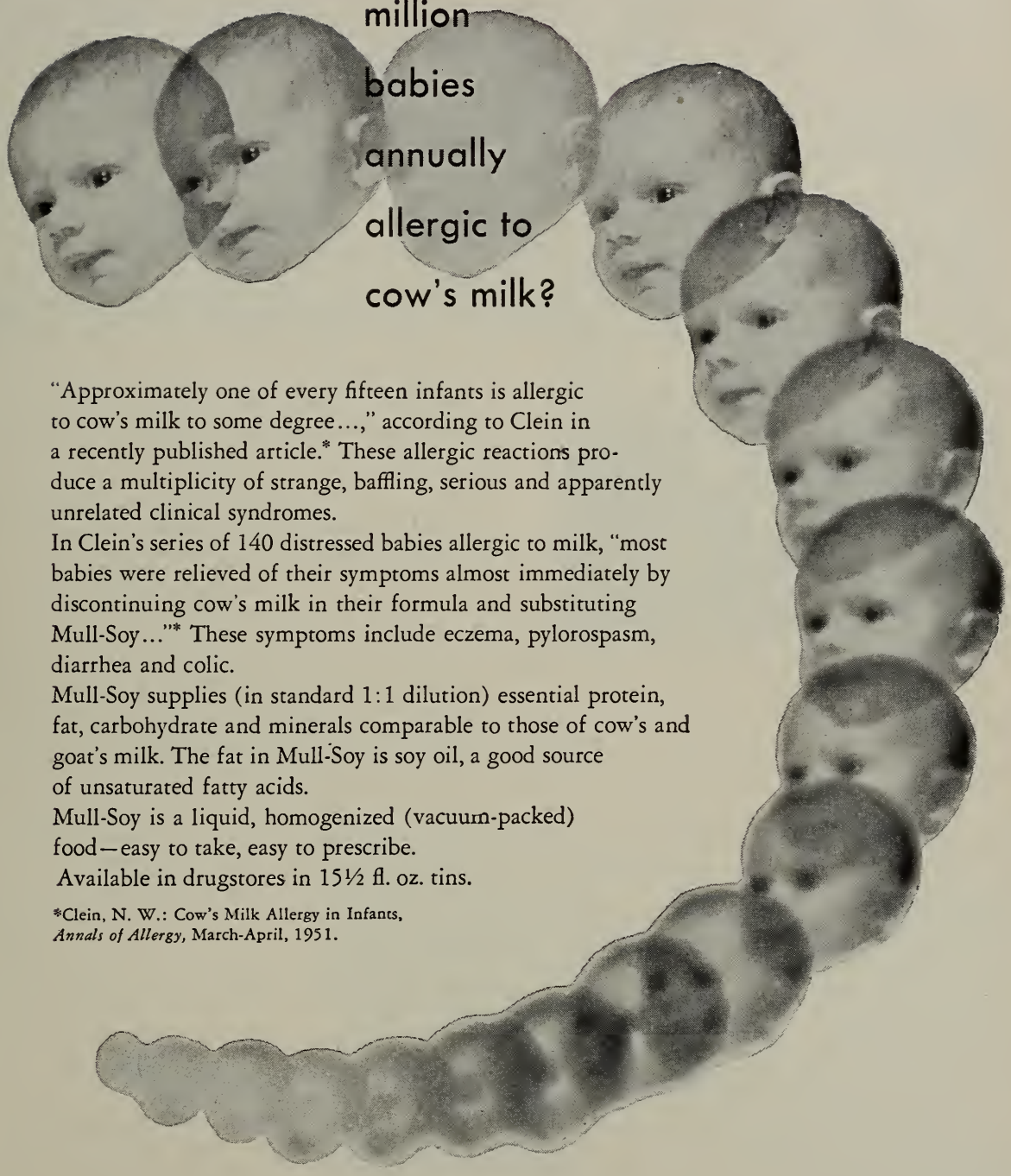
Best personal regards.

Sincerely Yours,
Kenneth E. Trim, Manager
Physician Relations Division

Insurance companies led private investors in taking advantage of the Treasury's recent 2.75 per cent bond exchange offer, Secretary John Snyder disclosed today. Snyder issued a breakdown of exchanges by classes of investors which shows that insurance company exchanges came to $3,338,227,000. The total volume of exchanges was 13,575,638,000.—*Journal of Commerce,* May 3, 1951.

Say you saw it in the Journal of the Michigan State Medical Society

almost a quarter million babies annually allergic to cow's milk?



"Approximately one of every fifteen infants is allergic to cow's milk to some degree...," according to Clein in a recently published article.* These allergic reactions produce a multiplicity of strange, baffling, serious and apparently unrelated clinical syndromes.

In Clein's series of 140 distressed babies allergic to milk, "most babies were relieved of their symptoms almost immediately by discontinuing cow's milk in their formula and substituting Mull-Soy..."* These symptoms include eczema, pylorospasm, diarrhea and colic.

Mull-Soy supplies (in standard 1:1 dilution) essential protein, fat, carbohydrate and minerals comparable to those of cow's and goat's milk. The fat in Mull-Soy is soy oil, a good source of unsaturated fatty acids.

Mull-Soy is a liquid, homogenized (vacuum-packed) food—easy to take, easy to prescribe.

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*Clein, N. W.: Cow's Milk Allergy in Infants, *Annals of Allergy*, March-April, 1951.

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In Memoriam

JAMES HERBERT DEMPSTER, the son of Archibald and Catherine Dempster, was born at Aylmer, Ontario, May 12, 1873. He died in Detroit on August 5, 1951.



James H. Dempster, B.A., M.A., M.D.

After graduation from high school, Dr. Dempster taught school for several years. He then attended Queens University, from which he received the B.A. degree in 1899. He served as assistant editor of the *London Daily Advertiser* and as editor of the *Windsor Record*. He was also a correspondent at the House of Parliament in Ottawa.

Dr. Dempster then became interested in Medicine and enrolled in the old Detroit College of Medicine from which he was graduated in 1909. He entered general practice but early became interested in and specialized in Roentgenology. For a time he was head of the X-Ray Department at St. Mary's Hospital, and continued to specialize in x-ray until his retirement a few years ago. He also taught for fifteen years at Wayne University College of Medicine and was made Emeritus Professor of Radiology.

The doctor was president of the Wayne County Medical Society in 1926-27. He was a member of the Michigan State Medical Society and was Editor of The Journal of the Michigan State Medical Society from 1926 to 1939. Detroit Institute of Technology bestowed on him the honorary degree of M.A. for his work in Radiology. He was also a 32° Mason.

He married Nellie May Taylor in 1903. Mrs. Dempster, his two sons, Dr. Clifford H. and Dr. Wilfred T., and his brother Lorne, survive him.

Dr. Dempster was a man of many facets—not only a physician, but a classical scholar as well. He read the classics in their original Greek and Latin. He was intellectually honest.

While editor of The Journal of the Michigan State Medical Society he brought that publication to the front rank of State Medical Journals. As an author, he shared his gifts with others in his book, "Medical Writing," which was of great assistance to doctors preparing articles on medical subjects. In this field of his special interest he was always ready to help and advise any who called on him.

His book "Pathfinders of Physiology" is a small masterpiece, and his "John Locke, Physician and Philosopher," is a delight to read.

Dr. Dempster was not only well read in Medicine, but in all world affairs. In his attitude toward the world and its people he was a real philosopher. In the medical college, he was unsurpassed in the teaching of his subject.

All of us who knew and loved "J. H." as a man and as a doctor will miss him greatly. With Swinburne we say, "A man beloved, a man elect of men."

William J. Stapleton, Jr., M.D.

KENNETH P. HODGES, M.D., of Lansing, Michigan, who practiced seventeen years in his home town, was born June 5, 1908. He was graduated from the University of Michigan Medical School in 1932 and interned at Ford Hospital in Detroit for a year. He served his residency at Edward W. Sparrow Hospital, Lansing. Dr. Hodges, who was chief of the department of general practice at St. Lawrence Hospital, Lansing, since 1938, was chairman of the Public Relations Committee of the Ingham County Medical Society and a member of the Public Relations Committee of the Michigan State Medical Society. Dr. Hodges was also vice chief of staff at Edward W. Sparrow Hospital from 1948 to 1949. He died July 29, 1951, at the age of forty-three years while vacationing at St. Joe Island, Ontario, Canada.

TREATMENT OF STILL'S DISEASE WITH CORTISONE AND GOLD

(Continued from Page 1028)

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. . . . . NEWS MEDICAL

The Bulletin of the Genesee County Medical Society annually publishes a biographical sketch of each of the interns and residents at Hurley and St. Joseph's Hospitals, together with photographs of the new hospital staffs.

* * *

JMSMS Quoted in Illinois—Edward L. Bortz, M.D., Philadelphia, past president of the American Medical Association, states in his paper, "The Elderly Patient" published in the June issue of THE JOURNAL MSMS:

"Never retire. Never retire to a life of complete inactivity. It is far more desirable to wear out than to rust out. By the development of new pursuits when one is asked to withdraw from a faculty, a bank, an industry, or other occupation, one can make a wise investment in his new-found leisure."

During the summer months a wise investment in leisure, a wise investment in activities other than medicine, will pay dividends at the other end of the road.—*Secretary's News Letter*, Illinois State Medical Society.

* * *

But as long as there are those who will capitalize on —rather than correct—popular misinformation, who will use fear of the people as an excuse for bad policies, responsible citizens dare not relax their efforts to give the public the facts. For if this work is neglected, we are all marked to suffer the consequences of a misinformed —and perhaps deliberately misinformed—public.

Never will there be reason to fear unsound governmental policies as long as a continuous effort is made to create public understanding of good policies. And never need responsible citizens fear the voice of the people as long as they make sure that voice knows what it is talking about.—Extract from the *Michigan Petroleum Industries Committee News*, July, 1951.

* * *

L. E. Holly, M.D., Muskegon, celebrated his 30th Wedding Anniversary and the 30th anniversary of his entrance into the practice of medicine on August 10, 1951. Congratulations!

* * *

James M. Orten, Detroit, was elected Secretary of the American Nutrition Association at the annual meeting held in Cleveland recently.

* * *

Another "Michigan First."—The services of a traveling EEG machine is planned by the Michigan Epilepsy Center. This includes a series of out-state traveling conferences on convulsive disorders.

The preliminary studies are to be done, using local facilities wherever possible. The traveling EEG machine is to be used in areas where this service is not available locally. This is a diagnostic aid only, any treatment indicated being referred back to the family physician.

The first conference with the portable EEG machine is proceeding in the Upper Peninsula with services of the technician available until September 1. This program has been approved by The Council of the Michigan State Medical Society. To our knowledge no other State has given this type of service.

CANCER CONFERENCE, OCTOBER 12

The Third Michigan Cancer Conference will be held at the W. K. Kellogg Center for Continuing Education, Michigan State College, East Lansing, on Friday, October 12. Registration from 9 to 10 a.m., program from 10 to 12:30. Luncheon at 1 p.m., followed by questions and general discussion until adjournment by 3 p.m.

A. E. Heustis, M.D., State Health Commissioner, will give a short welcoming address. The other speakers and their subjects are:

Madge Thurlow Macklin, M.D., Ohio State University, Columbus, "The Place of Heredity in Cancer Development."

Mrs. Marjorie Karker, Director, Women's Activities, Michigan Farm Bureau, Lansing, "Relation of Rural Organizations to the Cancer Problem."

"Home Care of Cancer Patients" will be discussed from the nursing angle by Miss Hulda Edman, R.N., Visiting Nurse Association, Detroit, and from the psychiatric angle by Harrison Sadler, M.D., Psychiatric Department, Wayne Medical School, Detroit.

F. L. Rector, M.D., will discuss "Cancer Education in Schools."

Advance registrations indicate a large attendance from various organizations throughout the state. For completed program write Horace Wray Porter, M.D., Chairman, MSMS Cancer Control Committee, 428 Wildwood Avenue, Jackson, Michigan.

The latest foreign subscription order for THE JOURNAL of the Michigan State Medical Society was received recently from Store Nordiske Videnskabsboghandel in Copenhagen, Denmark. The new Danish subscribers are

(Continued on Page 1070)

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(Continued from Page 1068)

booksellers and publishers of scientific, medical and technical publications.

This boosts the number of JOURNAL copies sent to foreign countries to twenty-five. Each month THE JOURNAL travels to such far-flung spots as an island in the Persian Gulf and a clinic in Argentina. Exchange copies are sent to Denmark, Peru, Australia, Sweden, Scotland, England, Italy and Canada. Other subscribers are listed in Bermuda and the Netherlands. A number of the subscriptions are ordered by publishers and booksellers in the foreign areas.

* * *

Ground broken for Medical Science Building—The first spadeful of earth was turned for the new Medical Science Building of Wayne University College of Medicine on August 13, 1951. The building will rise on Mullett Street between Rivard and Hastings, Detroit.

* * *



GP Lectures Dedicated to Roy D. McClure, M.D.—The Michigan Academy of General Practice this year, in conjunction with the Wayne County group of the American Academy of General Practice, will be the guests of Henry Ford Hospital on Wednesday, November 7, and Thursday, November 8. The occasion will be the fifth series of postgraduate lectures sponsored by general practitioners. This year they are to be dedicated to Roy D. McClure, M.D., who has passed on but who will never be forgotten by the group whom he helped in initiating this program. It was through his co-operation with the Academy that the first of these lectures was held at Henry Ford Hospital five years ago. He had about him a friendly way which made one feel at ease in his presence, and he seemed proud of the fact that his father had been a general practitioner before him.

The staff of Henry Ford Hospital has gone all out to make this meeting a worth-while occasion. A scientific display has been arranged, and plans are being formulated for demonstrations on patients, using the new electric stethoscope recently procured by the Academy. Out-state men may have hotel accommodations arranged for them by writing William L. Foster, M.D., 2567 W. Grand Blvd., Detroit 8, Michigan.

All members of the Michigan State Medical Society are cordially invited to attend the AAGP Lectures of November 7 and 8 in Detroit.

* * *

Cardiac Housewife Program of the Michigan Heart Association.—Free classes in work simplification techniques and time and energy savings for women with cardiac disorders will be offered by the Michigan Heart Association in many Michigan communities this autumn. The classes, which fulfill a specific need of the homemaker disabled by heart disease, are a definite aid to the Doctor of Medicine in the management of his women

(Continued on Page 1072)



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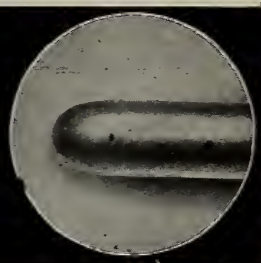
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(Continued from Page 1070)

cardiac patients. No medical advice, examination, diagnosis, or treatment are given in the classes.

The Cardiac Housewife Program is being offered by the Michigan Heart Association through the Extension Service of Michigan State College. Classes are currently being conducted in Ingham and Wayne Counties while Kent, Genesee, Grand Traverse, Berrien and Isabella Counties are already scheduled for the Program this fall.

With a tuberculosis death rate of 19.9 for 1950, Michigan ranks 24th in tuberculosis mortality among the states in the United States, according to provisional figures released by the National Tuberculosis Association.

Arizona had the highest rate—68.2. Second highest was the District of Columbia with a rate of 49.1 and a third highest, New Mexico with 35.7. The lowest rates were those of Wyoming—3.8, Utah—6.8, Iowa—8.0 and Nebraska—8.2.

Michigan's tuberculosis rate is only slightly lower than that of the nation as a whole, which was 22.2. Michigan is gradually losing position in relation to other states. Last year this state's rank was 19th; ten years ago it was 14th.

MICHIGAN TUBERCULOSIS ASSOCIATION

Medical Authors:

Meyer O. Cantor, M.D., Detroit, is the author of an original article "Mercury Lost in the Gastrointestinal Tract" which was published in JAMA in June, 1951.

Ralph L. Fisher, M.D., Morris Zukerman, M.D. and **Donald N. Sweeny, Jr., M.D.,** are authors of an original article "Thrombo-Angiitis Obliterans in Women," published in *Angiology,* April, 1951.

J. H. Ahronheim, M.D., Jackson, is the author of an original article, "Mass Blood Typing" which was published in the *American Journal of Clinical Pathology* in April, 1951.

C. S. Stevenson, M.D., E. C. Gillespie, M.D. and **J. B. Maunder, M.D.,** Detroit, are co-authors of an original article, "Treatment of Typhoid in Pregnancy with Chloramphenicol" which appeared in JAMA, July 28, 1951.

(Continued on Page 1074)

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(Continued from Page 1072)

The Michigan Hospital Association in its July, 1951, *Bulletin* states regarding possible reactivation by the federal government of the emergency maternal and infant care program: "Hearings on reactivation of EMIC, originally planned for June, probably will not be held before September or October. A broader issue is being discussed: namely, federal participation in payment of voluntary health insurance premiums for dependents of servicemen."

* * *

The New York Academy of Medicine announces its 24th Graduate Fortnight (in collaboration with the New York Heart Association) October 8 to 19, 1951, on the subject: "Disorders of the Circulatory System." For program and information, write the Academy at 2 E. 103rd St., New York, N. Y.

* * *

The American College of Physicians announces its postgraduate courses for the autumn of 1951. A course on selected subjects in Internal Medicine will be given at Marquette University School of Medicine, Milwaukee, Wisconsin, October 8 to 13. A course on "The Diagnosis and Treatment of Cardiovascular Disease" will be given at Cleveland Clinic, Euclid Ave. at E. 93rd St., Cleveland 6, Ohio, October 22 to 27, 1951.

For complete program and information, write Executive Secretary E. L. Loveland, 4200 Pine St., Philadelphia 4, Pennsylvania.

* * *

Fifty-five thousand (55,000) out of 125,000 physicians replied to the questionnaire on physicians' incomes in the survey made jointly by the U. S. Department of Commerce and the American Medical Association.

The survey showed that physicians in civilian practice in the United States, including salaried as well as independent practitioners but excluding interns, residents, and teachers, reported an average net income of $11,058 before taxes in 1949.

For a complete report on the survey, write Frank G. Dickinson, Ph.D., Director, Bureau of Medical Economic Research of the AMA, 535 N. Dearborn, Chicago 10, Illinois.

* * *

The National Fund for Medical Education made its initial distribution of grants totaling $1,132,500 to the seventy-nine medical schools of the country on July 19, 1951. Physicians contributed more than one-half of the total distributed. Elmer L. Henderson, M.D., of Louisville, Ky., President of the American Medical Education Fund, stated: "We cannot let up on our activities because the profession has pledged itself to raise a minimum of a million dollars during 1951." Dr. Henderson renewed his plea for continued contributions from the nation's physicians.

* * *

GP, the magazine published by the American Academy of General Practice, announces that Hugh H. Hussey, M.D., Associate Professor of Medicine at Georgetown University, Washington, D. C., has been appointed Associate Editor. Mac F. Cahal, the managing publisher,

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FOR Program and Hotel Reservations, write Wm. L. Foster, M.D., 2567 W. Grand Blvd., Detroit.

stated that Dr. Hussey would aid Medical Editor Walter C. Alvarez, M.D.

* * *

The American Congress of Physical Medicine will hold its 29th Annual Scientific and Clinical Session at the Shirley Savoy Hotel, Denver, Colorado, September 4-5-6-7-8, 1951. For program, write the American Congress, 30 N. Michigan Ave., Chicago 2, Illinois.

* * *

Parke, Davis & Co. just experienced the best six months (from January to July, 1951) in its 85-year history with net sales of over $68 million and net earnings—despite materially higher U. S. taxes—of close to $10 million, according to Harry J. Loynd, President of the world-wide Detroit firm which produces over 1,400 different drugs. U. S. Taxes for the six-months period reached the staggering total of $5,108,000.

* * *

The National Institute of Health, National Cancer Institute (Public Health Service, Federal Security Agency) made two grants to the University of Michigan totalling $25,736 and one grant to the University of Detroit of $5,000, "to improve instruction in cancer diagnosis and treatment by future doctors."

* * *

Wyeth Inc. has issued its second release of "Tele-Clinic" across the nation. It is a sound motion picture featuring abstracts of scientific papers presented at the San Francisco meeting of the American Academy of General Practice (March, 1951). The production is a 35-minute 16 mm black and white film, reviewing the important conferences of the four-day postgraduate assembly.

Wyeth's first Tele-Clinic, released last November, featured proceedings of the U. S. Assembly of the World Medical Association. It has been seen by more than 30,000 doctors, including the AMA House of Delegates, according to President Harry S. Howard of Wyeth.

* * *

"This is Civil Defense" is a recent publication of the Federal Civil Defense Administration (Publication PA-3). The pamphlet shows there is a defense against atomic warfare—that civil defense is a major part of it, that it can cut losses in half, can save lives. The booklet tells you *how*.

Copies may be obtained by writing the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. (price 10c).

* * *

Blue Cross-Blue Shield.—Enrollment figures as of May 1, 1951, show that Michigan Medical Service had 2,302,616 subscribers; Michigan Hospital Service, 2,471,342 subscribers.

Michigan is still leading New York by about 100,000 subscribers.

At the July meeting of the Board of Michigan Hospital Service management was authorized to liberalize x-ray benefits to $15.00 per subscriber per admission or per case.

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A resolution was passed:

"Effective as soon as practicable after October 1, 1951, the policy of the Michigan Medical Service and the Michigan Hospital Service shall be to use the Blue Shield and the Blue Cross insignia separated instead of as a joint symbol as at present. Either the Blue Cross or the Blue Shield may be used alone when appropriate for correspondence or display to hospitals or doctors, respectively.

"Both symbols shall be used in advertising and promotional material and in other material prepared for the public."

* * *

American Board of Obstetrics and Gynecology.—Effective August 10, 1951, the office of the American Board of Obstetrics and Gynecology will be located in Cleveland, Ohio. Please address all communications to: Robert L. Faulkner, M.D., Secretary-Treasurer, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

The Chicago Medical Society announces two postgraduate courses—"Endocrine and Metabolic Diseases," October 15-19, 1951 and "Obstetrics and Gynecology," October 22-26, 1951. For complete information, write the Chicago Medical Society, 86 E. Randolph Street, Chicago 1, Illinois.

* * *

Make Your Waiting Room Speak for Medicine.—INSIDE MICHIGAN, a new and worthy journal of down-to-date Michigana, carried as its feature and cover story for October: "Inside Michigan Looks Inside Medicine." Your patients will read the story of Michigan Medicine if INSIDE MICHIGAN is left casually on your waiting room table. This magazine should be in the office and waiting room of every Doctor of Medicine in this State. Buy a copy from your newsstand —or better still, subscribe by writing Inside Michigan Publishers, Inc., 944 Free Press Bldg., Detroit 26, Michigan. One year, $3.00; two years, $5.50; three years, $8.00. This magazine tells your story for you. It will do the same for other Michigan professions and institutions in coming months. It's a powerful voice for private enterprise.

* * *

Michigan Hospital Service (Blue Cross).—E. Dwight Barnett, M.D., President, and W. S. McNary, Executive Vice President of Michigan Hospital Service, are most anxious to see that information furnished by their district office personnel is accurate and is given in a courteous manner. Writes Mr. McNary: "The best way the medical profession can aid us in taking constructive action to correct any untoward situations which may exist is to give us the complete details of any actual complaints which reach them. We should have the data on any such incidents just as quickly as possible after they occur."

Through this praiseworthy co-operation, the medical profession is assured of good accurate service in the Michigan Hospital Service-Michigan Medical Service (Blue Cross-Blue Shield) branch offices.

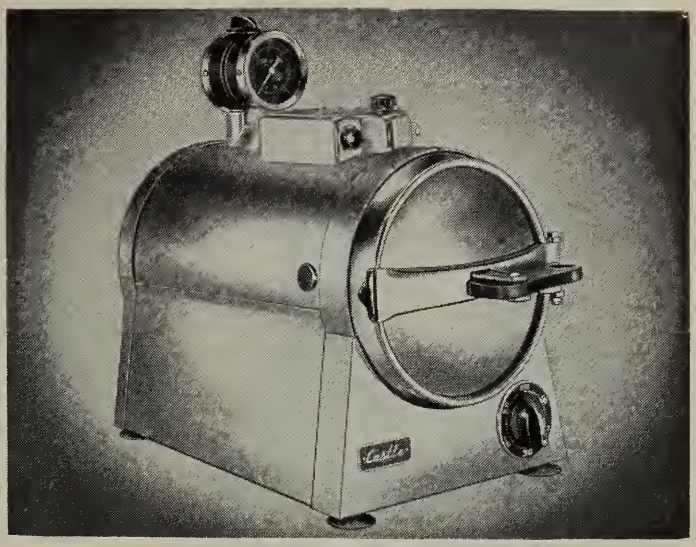
* * *

McCormick Article Goes into Book.—The article entitled "Don't Strangle Your Medicine in Government Red Tape," which was written by Dr. E. J. McCormick,

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Toledo, a member of the AMA Board of Trustees, is going to be incorporated in a book to be published by the Department of Government of the University of Texas. The article appeared originally in The Republican magazine.

* * *

Conference on Physicians and Schools.—The Third National Conference on Physicians and Schools, sponsored by the AMA Bureau of Health Education, will be held at Highland Park, Ill., November 6-7-8. Invitations have been extended to each state and territorial medical association to send at least one delegate.

This conference, held annually, is important to physicians. Dr. W. W. Bauer, director of the Bureau, said it provides an opportunity for representatives of medical associations to meet with delegates from state health and education departments, along with recognized authorities on school health from universities and national agencies, to discuss the relationships with physicians, educators and public health workers in the school health program.

* * *

A program of action for our study of catastrophic illness was discussed by a group of research experts. Attending the meeting were Harry Becker, Director of the Department of Social Security of the U.A.W.-C.I.O.; R. L. Brown, in charge of research in the industrial relations department of Standard Oil Co. (Indiana); Fedele Fauri, Dean of the School of Social Work at the University of Michigan; Fred G. Harbison, Director of the Industrial Relations Center at the University of Chicago; Edwin Shields Hewitt, management consultant; and Ivan L. Willis, Vice President in charge of industrial relations at International Harvester.

* * *

Doctors Give Ultimatum to Britain.—All 20,000 physicians in Britain's nationalized health service told the Government they would resign September 25 unless their demands for increased pay rates were submitted to arbitration.

The doctors now get a flat fee of $2.50 a year for each patient and are allowed to sign on a maximum of 4,000 patients. They have been complaining they have to take on too many to earn a decent living.

The 20,000 who signed up under the National Health Service include all except 1,000 of the Nation's general practitioners.

The income of each is estimated between $3,000 and $6,000 a year.

The average British worker is credited with an income of $873 a year. (Associated Press).

* * *

Britain Agrees to Arbitrate on Pay of Doctors.—The government has given way to an ultimatum by 20,000 family physicians who threatened to resign from the so-called free health service. It agreed to the physicians' demand that pay claims should be arbitrated before an independent third party.

The health minister, Hilary Marquand, and the

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secretary of state for Scotland, Hector McNeil, disclosed the decision in a letter to the general medical services committee. The letter also suggested that the government and its physicians should be represented on a committee to revise distribution of general practitioners' incomes.

Family doctors receive a fixed amount for each patient registered with them, whether he is ill or not. Some have complained that they have to take so many patients to make a living that they are unable to give adequate attention to any (Reuter's).

* * *

Army Inducts First Physicians Under Doctor-Draft Law.—Army reports drafting of two physicians as privates—the first under the doctor-draft law. Others of the 717 Priority I physicians called up for July presumably received commissions. Army earlier reported marked increases in Priority I men seeking commissions. As a result, Defense Department has asked Selective Service to *delay temporarily the induction of 333 Priority I physicians for August.*

Army first announced drafting of Dr. Stanley J. Orloff of New York City, graduate of Tulane University School of Medicine in 1946. Army said he reported for duty as a private at Camp Kilmer, N. J., and is scheduled for assignment to Brooke Army Medical Center at Fort Sam Houston, Texas. Second draftee identified as Dr. Robert Beconvich of Hammond, Ind., graduate of Indiana University School of Medicine. He reported to Fort Sheridan, Ill., and then goes to Brooke.

In asking Selective Service to delay August call, Defense Department emphasized its request was based only on the increase in rate of volunteers and not on any reduction of requirements for medical officers. Sustained increase in number of physicians applying for commissions caused the delay. Defense said question of whether calls for September will be made will be settled in the next week. There is *no anticipated reduction in the September call of 152* Priority I physicians, but it's possible that Defense will ask for more men in event the August quota is not filled.—*Capital Clinic,* July 31, 1951.

* * *

Thirty-eight Governors Heard From in Murray Poll on Physician Distribution.—Spokesman for Senate Labor and Public Welfare Committee reports 38 state governors have replied to request of Chairman Murray for information on physician distribution within each state. It is understood that a majority of replies so far received indicate *no mal-distribution of physicians.* However, the committee says it may be two or three weeks before summary is made. "There is no urgency," the committee spokesman commented.

In his letters to governors, Senator Murray said "it has been proposed that federal subsidies be used to persuade doctors to move to areas where there is an acute shortage of medical personnel." Among questions asked was "has your state too many, not enough or just about enough doctors to meet the needs of residents?"

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ANNUAL MIDWEST SEMINAR OF DENTAL MEDICINE

One of the most important problems in the health sciences, oral infection, will be discussed at the Fourth Annual Midwest Seminar of Dental Medicine which will be held at Baileys Harbor, Wis., on September 16-20.

The 1951 seminar will be focused on the theme: "The Evaluation of Infection in Dental Practice."

Purpose of the seminar is to promote a thorough evaluation of this subject, and to exchange and discuss the latest information. Researchers and clinicians associated with numerous institutions will contribute their findings and opinions. It is the intent of the seminar to prepare a complete report at the conclusion of the sessions and to present it to medical and dental publications.

Four lecturers have accepted invitations to participate in the seminar which will open Sunday evening, Sept. 16, and continue through Thursday morning, Sept. 20. They are:

Harry Sicher, M.D., professor of anatomy and histology, Loyola University School of Dentistry, who will present "Anatomical Aspects."

Theodor Rosebury, D.D.S., professor and head of the Department of Bacteriology, Washington University School of Dentistry, who will discuss "Bacteriologic Aspects."

E. S. Gordon, M.D., Ph.D., associate professor of medicine, University of Wisconsin Medical School, and Edmund B. Flink, associate professor of internal medicine, University of Minnesota Medical School, who will discuss "Biochemical Aspects and Oral Infection as the Internist Sees It."

Dental co-ordinators for the seminar will be:

Maury Massler, D.D.S., M.S., professor of graduate pedodontia, University of Illinois College of Dentistry.

Edward C. Stafne, D.D.S., associate professor, Mayo Foundation.

Donald C. Lyons, D.D.S., M.S., Ph.D, practising oral surgeon, Jackson, Mich

Seminar officers are Allan G. Brodie, president; Edward J. Ryan, vice president; Chester A. Thorsen, secretary-treasurer; and Isaac Schour, executive director.

* * *

Senate Subcommittee Reports Ewing Agrees to Firings in Publicity Staff.—Senate appropriations subcommittee on FSA reports FSA Administrator Oscar Ewing has agreed "to go along" with its recommendation for *cutback in FSA Office of Publications and Reports staff.* The Chavez group proposed fiscal 1952 budget of $77,000 with 18 employes as against budget estimate of $170,000 and 33 employes.

FSA sources, meanwhile, report *21 of their publicity staff already have been given dismissal notices.* The agency said it was laying off more staff than proposed because Chavez subcommittee didn't take into consideration accumulated leave pay, administrative raises and like expenses.

Cook County Graduate School of Medicine
ANNOUNCES CONTINUOUS COURSES

SURGERY—Intensive Course in Surgical Technic, two weeks starting September 24, October 8, October 22.
Surgical Technic, Surgical Anatomy and Clinical Surgery, four weeks, starting October 8, November 5.
Surgical Anatomy and Clinical Surgery, two weeks, starting September 24, October 22, November 19.
Surgery of Colon and Rectum, one week, starting September 17, October 15.
Esophageal Surgery, one week, starting October 15.
Thoracic Surgery, one week, starting October 8.
Gallbladder Surgery, ten hours, starting October 22.
Breast and Thyroid Surgery, one week, starting October 1.
General Surgery, one week, starting October 1.
Fractures and Traumatic Surgery, two weeks, starting October 8.

GYNECOLOGY—Intensive Course, two weeks, starting September 24, October 22.
Vaginal Approach to Pelvic Surgery, one week, starting September 17, November 5.

OBSTETRICS—Intensive Course, two weeks, starting November 5.

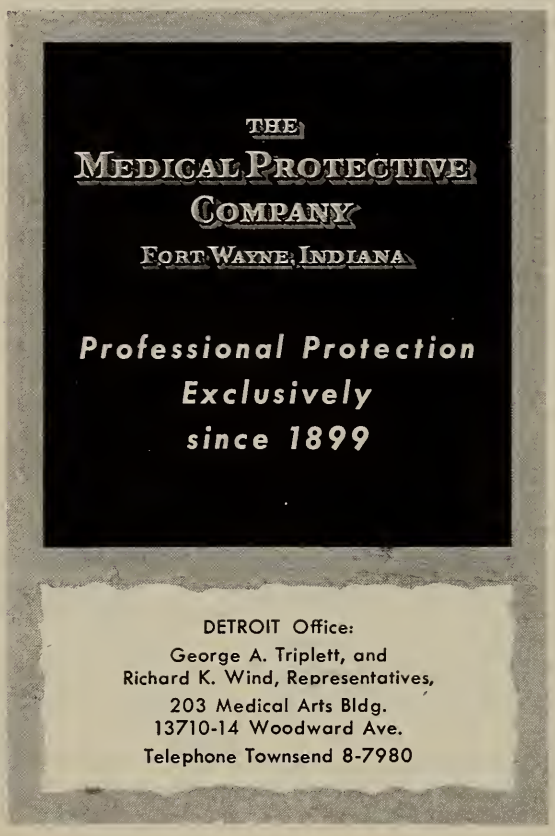
MEDICINE—Intensive General Course, two weeks, starting October 1.
Gastroenterology, two weeks, starting October 15.
Electrocardiography and Heart Disease, two weeks starting October 22.

UROLOGY—Intensive Course, two weeks, starting September 24.
Ten day Practical course in Cystoscopy every two weeks.

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ADDRESS: REGISTRAR, 427 South Honore Street, Chicago 12, Illinois



DETROIT CANCER MEETING, OCTOBER 22-23-24

The Fourth Annual Scientific Meeting of the Detroit Institute of Cancer Research is scheduled for October 22, 23 and 24, 1951, with the first two days being devoted to scientific sessions; and the third day to a clinical session. The meetings will be held in the small auditorium of the Engineering Society of Detroit, 100 Farnsworth Ave., Detroit.

The tentative program is as follows:

MONDAY, OCTOBER 22

Morning Session—10:00 a.m.

C. H. Best, M.D.—University of Toronto
"Factors Which Control the Fat Content of Liver Cells"

James A. Miller, M.D.—University of Wisconsin
"Biochemical Aspects of Experimental Hepatic Carcinogenesis"

Afternoon Session—2:00 p.m.

Michael Heidelberger, M.D.—Columbia University
"Quantitative Immunochemical Studies on the Purified Milk Factor Causing Mammary Carcinoma in Mice"

M. J. Kopac, M.D.—New York University
"Micrurgical Studies on Living Cells"

Keith R. Porter, M.D.—Rockefeller Institute for Medical Research
"Observations on the Fine Structure of Protoplasm"

TUESDAY, OCTOBER 23

Morning Session—9:00 a.m.

(Speaker to be announced)

Irwin Chargaff, M.D.—Columbia University
"Studies on the Composition and Properties of Nucleic Acids"

Vincent duVigneaud, M.D.—Cornell University Medical College
(Topic to be announced)

Afternoon Session—2:00 p.m.

Hans Neurath, M.D.—University of Washington
"The Chemical Behavior and Mode of Action of Protelytic Enzymes"

Hans Selye, M.D.—University of Montreal
"The General Adaptation Syndrome and Tumor Regenesis"

WEDNESDAY, OCTOBER 24

Clinical Session

Alton Ochsner, M.D.—The Tulane University of Louisiana
"Bronchogenic Carcinoma"

James Barrett Brown, M.D.—Washington University School of Medicine
"Neck Dissection for Metastatic Carcinoma"

Ira T. Nathanson, M.D.—Massachusetts General Hospital
(Topic to be announced)

Cushman D. Haagensen, M.D.—Columbia University
(Topic to be announced)

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An open house and series of demonstrations of what is going on in the Institute may be arranged some time on Wednesday. More definite information later.

A special invitation is given to all MSMS members to attend and take part in these sessions.

* * *

AEC Reports $28,000,000 Investment in Biological and Medical Research.—Atomic Energy Commission, in 10th semiannual report to Congress, estimates that during past year it has invested about $20,000,000 in biological and medical research, and $8,000,000 in laboratory facilities. Research has centered on developing means to combat harmful effects of radiation, to utilize beneficial effects of radiation to improve health, to guard health of atomic energy workers and to provide technical data for civil defense planners.

TREATMENT OF TRICHOMONAS VAGINALIS VAGINITIS

(Continued from Page 1053)

by instructing the patient to use the capsule less frequently. In only a few cases was the irritation severe enough to warrant discontinuing treatment. Such instances probably could be avoided by using the newest formula, a tablet** containing a lesser amount of the wetting and surface tension reducing agent, sodium lauryl sulfate (.04 gm.) The use of lesser amounts is possible since the action in reducing surface tension is not lessened thereby.

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Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

ORTHOPEDIC SURGERY. By Paul C. Colonna, M.D. Philadelphia: W. B. Saunders Company, 1950. Price, $11.50.

This author has approached the subject of orthopedic surgery from the regional standpoint, repeating some material where it is pertinent, but making the exposition of the topic under discussion much more gratifying. The philosophy is that when one is looking for some particular procedure, he does not want to have to look in many places in the book for parts of his subject, but will be benefited and save much time and annoyance by having all material at hand, even at the cost of some repetition. This is a well-prepared and very satisfactory book.

CLINICAL HEART DISEASE. By Samuel A. Levine, M.D., F.A.C.P., Clinical Professor of Medicine, Harvard Medical School; Physician, the Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton-Wellesley Hospital; Physician, New England Baptist Hospital. Fourth edition. Illustrated. Philadelphia: W. B. Saunders Co., 1951.

In this, the fourth edition of his original book published in 1936, the author has given us another most excellent and practical approach to heart disease. As with the others, this is meant to appeal to the general practitioner and the author has presented in simple form the important aspects of the diagnosis, prognosis and treatment of heart disease. Due to the rapid and valuable progress in our knowledge of heart disease in the last five years much revision of the previous text had to be done. New chapters have been added and the subject of electrocardiography is covered by a completely new discussion because of the advances in unipolar and precordial leads.

The anticoagulant therapy for coronary thrombosis, the antibiotic treatment of bacterial endocarditis, catheterization of the heart, congenital heart disease and the surgery thereon and the surgical approach to acquired heart disease are adequately covered and the reader is

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brought completely up to date. Also, the chapters on functional heart disease, acute cardiovascular emergencies, medicolegal aspects of heart disease and the patient with heart disease as a surgical or obstetric risk are all excellently done and are of value almost daily.

Another outstanding feature of this book is that, although there is reference between some chapters, actually each chapter is a treatise on that particular aspect of the subject. As such, the chapters can be read independently. All in all, this text can be recommended highly as an excellent product of a very distinguished clinician.

G.W.S.

PRACTICAL CLINICAL PSYCHIATRY. By Edward A. Strecker, A.B., A.M., Sc.D., Litt.D., LL.D., M.D. Professor of Psychiatry, School of Medicine, University of Pennsylvania; Franklin G. Ebaugh, A.B., M.D. Professor of Psychiatry, University of Colorado, School of Medicine; Director, Colorado Psychopathic Hospital and Jack R. Ewalt, M.D. Professor of Neuro-Psychiatry; Administrator of Hospitals, University of Texas Medical Branch, Galveston, Texas. Section on Psychopathologic Problems of Childhood by Leo Kanner, M.D. Associate Professor of Psychiatry, Johns Hopkins University School of Medicine. Seventh Edition. Philadelphia: The Blakiston Co., 1951. Price $7.00.

It would seem superfluous to speak on the merits of a textbook that is now in its seventh printing in twenty-six years. Practically everyone interested in psychiatric problems already knows of this practical volume. Possibly there are some members of the medical profession, in general practice, or one of the other specialties, who

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may not have become acquainted with the writings of these authors. The authors are aware of the opportunities for early observation by medical men other than psychiatrists. The general practitioners, internists, obstetricians, pediatricians and dermatologists, will, in one way or another, treat the vast majority of psychiatric cases, particularly those suffering with psychoneurotic or psychosomatic disorders. In writing this book the authors are mindful of the other specialists as well as psychiatrists and students, feeling that they should have basic ideas on the technique they may employ. This edition follows the general pattern of previous ones. There are a few changes, namely: the fluid approach in classification. There is a chapter on support-psychotherapy which should prove valuable. Again Dr. Kanner has contributed a section on the psychopathological problems of childhood. Practical clinical psychiatry has now become one of our standard textbooks.

G.K.S.

MANAGEMENT OF CELIAC DISEASE. By Sidney Valentine Haas, M.D., Professor of Pediatrics and Director of the Department, New York Polyclinic Medical School and Hospital; Consultant, Lebanon Hospital, Harlem Hospital, and Riverside Hospital for Contagious Diseases of the New York Health Department; Fellow of the New York Academy of Medicine; and Merrill Patterson Haas, M.D. 12 illustrations. Philadelphia: J. B. Lippincott Co., 1951. Price, $5.00.

This monograph is particularly useful in its detailed discussion of the therapy of Celiac disease. This feature is presented with admirable detail and thoroughness. While the dietary regimen advocated is rather inflexible there is no question as to its conservatism and its safety.

In addition to the sections on treatment, the entire subject is well presented from historical, clinical, and pathologic angles.

The last forty pages present the personal views of the authors as distinct from a purely textbook discussion.

There is a remarkably complete bibliography.

H. F. B.

MANUAL OF MASSAGE AND MOVEMENTS. By Edith M. Prosser, T.M.M.G. Trained Nurse and Certified Midwife. Member of Council of Chartered Society of Massage and Medical Gymnastics 1936-44, Sister in Charge Massage Department and Principal of School 1930-1949, continuing Examiner for Chartered Society of Physiotherapy at the Middlesex Hospital, London since 1928. Illustrated by Miss M. Ruddick. Philadelphia: J. B. Lippincott Company, 1951. Price $5.00.

The author presents a thorough knowledge in the technique of the art of massage and principles of corrective movements.

The chapter on "Mechanical Points of Movements" is well described, considering both the patient and instructor.

The physical aspects covering many medical conditions, often overlooked, are clearly handled.

Thorough, intelligent, and effective application makes this book an excellent textbook for students of physiotherapy.

M. M.



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A REVIEW OF MEDICINE. By Members of The Faculty Northwestern University Medical School. Edited by Benjamin Boshes, M.D., M.S., Ph.D., Associate Professor of Nervous and Mental Diseases, Northwestern University Medical School, Attending Neuropsychiatrist, Passavant Memorial and St. Luke's Hospitals, Chicago, Illinois, and Senior Consultant in Neurology, Veterans Administration Hospital, Hines, Illinois. Sixth edition, revised, appended and reset. Chicago, Illinois, 1951. Price $15.00, postage 30 cents.

This large book of about 800 pages has grown out of the originally mimeographed and lethographed Cook County Notes. It is a current review of general medicine, each subject presented by a different author, selected from the faculty of Northwestern Medical School. As the author states, it is "not a textbook, but a compilation of data taught in the classrooms of Northwestern University Medical School." Originally, it was designed to help prepare students for the annual examination for the Cook County Hospital internship.

It offers a quick, though incomplete, treatment of a wide variety of general medical subjects and might find use by the busy general practitioner, resident, and intern as a ready reference guide in the work-up of the patient.

I doubt if the average physician would find that the work would be a justifiable addition to his library at the cost. However, the book is in its sixth edition; is well printed of easily read type on a nonglare page; and has been fairly popular in the past, particularly among students.

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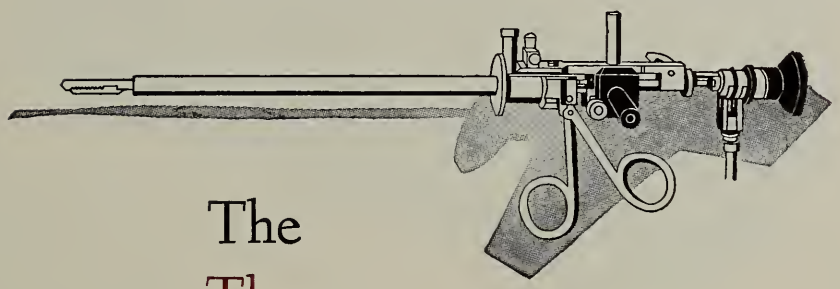
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HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of August 15, 1951

Sixty-six items were considered by the Executive Committee of The Council on August 15. Chief in importance were:

- Monthly financial reports were presented and approved. Bills payable were inspected and authorized to be paid.
- President-Elect Otto O. Beck, M.D., Birmingham, was requested to make presentation to MSMS House of Delegates re need for Beaumont Memorial on Mackinac Island.
- New MSMS "home" at 606 Townsend Street, Lansing 15. The Executive Director reported on the move to the MSMS headquarters on July 27, 1951, and reviewed arrangements for insurance, phone and light installations, employment of maintenance man and of mailing service man, of purchase of additional equipment required for new building.
- Photographs of all Past Presidents are to be requested, for placing in a position of honor in the new home of MSMS, upon suggestion made by Council Chairman R. J. Hubbell, M.D., Kalamazoo.
- Rheumatic Fever Control. Reports from Frank Van Schoick, M.D., Jackson, Chairman of the MSMS Rheumatic Fever Control Committee and of J. Joseph Herbert, Manistique, MSMS Legal Counsel, as well as the monthly report of Rheumatic Fever Co-ordinator Leon DeVel, M.D., Grand Rapids, were presented. Drs. Van Schoick and DeVel were requested to confer on the subject of Rheumatic Fever Control Centers in the Upper Peninsula and to present their final thinking and report to The Council on September 23 in Grand Rapids.
- Grand View Hospital case, Ironwood. Legal Counsel Herbert reported that this case against the Grand View Hospital Trustees (instigated by chiropractor) had been decided by the Gogebic County Circuit Court in favor of the Trustees of the Hospital, which decision substantiates the opinion of Dean E. Blythe Stason of the University of Michigan on the subject of the practice of healing in hospitals. The Gogebic County Circuit Court opinion was ordered mailed to various groups in interest.

Three other items were presented by the Legal Counsel in his monthly report to the Executive Committee.

- The monthly report of Public Relations Counsel H. W. Brenneman included information on the new MSMS film "To Save Your Life" which will have its premiere before the MSMS House of Delegates on September 24 in Grand Rapids; also Mr. Brenneman presented the "Formula For Freedom," the program for 1952 public relations activity of the Michigan State Medical Society, which was approved as outlined, for presentation to the House of Delegates in Grand Rapids.
- President C. E. Umphrey, M.D., announced that the Biddle Lecturer of 1951 would be Clarence Manion, Dean of the College of Law of Notre Dame University who would speak on "The Key to Peace" on September 26 in Grand Rapids.
- President-Elect Otto Beck, M.D., offered three items in his monthly report.
- Treasurer A. S. Brunk, M.D., Detroit, presented a detailed description of bonds redeemed for cash August 1, 1951 (to pay for the property at 606 Townsend Street, Lansing). The Treasurer was congratulated on his excellent report, indicating a substantial profit on the bonds held in his portfolio.
- Secretary L. Fernald Foster, M.D., Bay City, reported that "State Society Nights" are being arranged by county medical societies in various parts of the state and urged Council members to attend wherever possible—and to encourage additional meetings of this type.
- Recommendation of R. W. Waggoner, M.D., of Ann Arbor, Chairman of the MSMS Mental Hygiene Committee, that the Governor appoint two psychiatrists to the Mental Health Commission, was approved.
- William LeFevre, M.D., Muskegon, who turned a rosewood gavel and also made a box to house it—for presentation to the Woman's Auxiliary on the occasion of its Silver Anniversary on September 26 in Grand Rapids—was sent a let-

(Continued on Page 1100)



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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 1098)

ter of commendation and thanks for his thoughtful and beautiful work.

- With the approval of the Michigan Hospital Association and the Michigan Crippled Children Commission, a procedure whereby doctors would be notified in future (effective November 1, 1951), when they cared for afflicted and crippled children under the two laws administered by the MCCC, so that physicians' billing could be made within the sixty-day legal limit—was reported. This procedure was approved by the Executive Committee.
- A public meeting during the 1952 Michigan Clinical Institute was authorized, if P. S. Hench, M.D., Mayo Clinic (1951 Nobel Prize winner for his work in ACTH and Cortisone) will accept invitation to speak in Detroit next March.
- Committee reports: (a) Michigan Hospital Association Public Relations meeting of July 25; (b) Michigan Hospital Trustee Association meeting of July 27.

COMMITTEE ON UNION HEALTH PROBLEMS

A six-man committee, containing two representatives each for labor, the public and industry, is helping the Wage Stabilization Board determine the type of health, welfare and pension programs that may be permitted in union contracts without exceeding the 10 per cent ceiling on wage increases. The problem is to allow a certain amount of such fringe benefits, yet avoid inflationary increases in the workers' "real income."

One member appointed to represent the public in the Committee's deliberations is Wilbur Cohen, technical adviser to the U.S. Social Security Commissioner, Arthur J. Altmeyer. The other public member is John McConnell, professor at Cornell and now on leave as co-director of the Twentieth Century Fund's study of pensions. Industrial members are G. Gilsen Terriberry, New York consultant on pensions and insurance, and James H. Robins, president of American Pulley Co., Philadelphia. Labor is represented by Carl Huhndorff of the International Association of Machinists, and Harry Becker of Detroit United Auto Workers (C.I.O.).

The committee currently is studying pensions. Later it will look into welfare and health programs. Recommendations of the committee presumably will guide the Wage Stabilization Board in determining the extent of medical-surgical-hospital programs which it will allow in future union contracts.

It's a long stretch of the imagination to imagine Cohen as an impartial representative of the public.

INDIANA SUES TO FORCE EWING TO RESUME U.S. WELFARE PAYMENTS

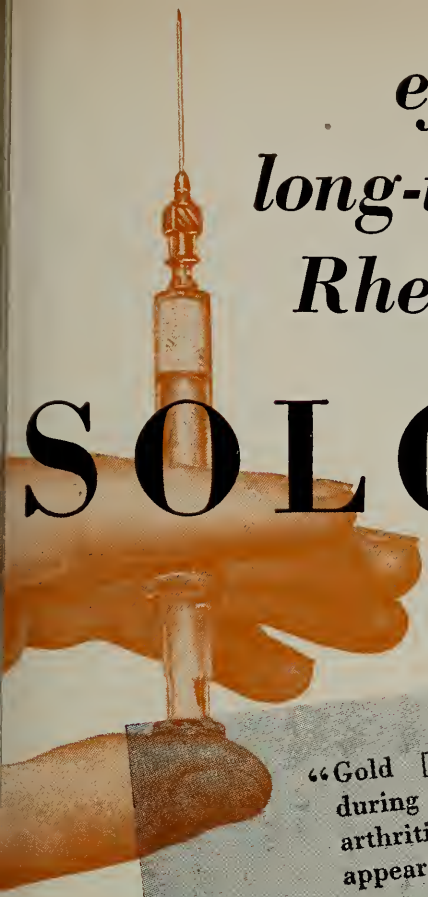
A legal showdown is due shortly in the dispute between the State of Indiana and Federal Security Administrator Oscar Ewing over U.S. welfare payments to that state. August 1, Mr. Ewing cut off federal payments to Indiana for old age assistance, aid to dependent children and assistance to the blind and other handicapped. He pointed out that a new Indiana law opening welfare rolls to "public inspection" was in violation of federal laws imposing secrecy on the lists, and that therefore he was required to stop the payments. Now Indiana's Attorney General J. Emmett McManamon has filed suit in U.S. District Court in the District of Columbia, stating that an emergency exists in the state and calling on Mr. Ewing to resume the payments. Mr. McManamon claimed that the Indiana statute was not in violation of the federal confidential requirement because it restricts inspection of recipients names to "purposes directly connected with the administration of assistance." Prompt action on the suit is expected.

TRUMAN VETOES BENEFIT BILL, CRITICIZES VA NON-SERVICE CARE SYSTEM

President Truman took advantage of a veto message to re-emphasize his opposition to the system under which two-thirds of Veterans Administration hospital cases are non-service connected. The vetoed bill would apply only to disabled veterans whose disability was not service connected. It would increase benefits for such veterans who require the attendance of another person (nurse included) from $60-$72 per month to $120. The President pointed out that the bill would cost $16,700,000 the first year, increasing as the veteran population grows older to a peak of $400,000,000 annually. (Passed over veto by House, 318 to 45).

The President declared: "Enactment of H.R.

(Continued on Page 1102)



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1 Adams, C. H., and Cecil, R. L.: Ann. Int. Med. *33*:163, 1950.
2 Bayles, T. B.: Medical Forum, Mod. Med. (no. 24) *18*:86, 1950.
3 Gilbert, J. T., Jr., and Moore, F. H.: J. Kentucky State M. A. *48*:308, 1950.

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TRUMAN VETOES BENEFIT BILL

(Continued from Page 1100)

3193 would aggravate an already existing disparity in the government's treatment of non-veterans and veterans whose disabilities are in no way connected with military service. Under the present law, a veteran and a non-veteran permanently disabled, for example, in the same automobile accident, would not be treated alike even if they are equally deserving and are in equal need. The veteran would be eligible for a disability pension, subject to certain income limitations. The non-veteran would have no eligibility for disability benefits . . . On several occasions I have said that new legislation dealing with veterans' problems should be limited to meeting special and unique needs which arise directly from military service. The other needs of veterans—those which do not arise directly from military service—should be met through comprehensive programs for veterans and non-veterans alike."

MILITARY NOTES

The Indiana physician inducted as a private under the doctor-draft law has accepted a commission . . . Armed Forces have taken 613 nurses and 568 physicians for active duty from Veterans Administration since the beginning of the Korean War . . . Back from a two-week tour of Korea and Japan with N. Y. Governor Thomas E. Dewey, Dr. Herman E. Hilleboe, N. Y. State's Health Commissioner, reports, "The boys in Korea have been getting wonderful medical care." He commented on the speed with which the seriously wounded were moved back in helicopters and the rapidity with which they were treated in a mobile, surgical hospital.

CONGRESS EXEMPTS VA AND PHS MEDICAL PERSONNEL FROM LAYOFFS

The $6 billion independent offices bill which has passed Congress exempts from a 10 per cent personnel cut all employes in Veterans Administration medical facilities, with the exception of medical department personnel in Washington. Passage of the bill by both Houses, after conferees agreed on a formula for reducing personnel, has speeded up action on other fund measures and

(Continued on Page 1114)

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

1951

Autumn	MSMS Postgraduate Extramural Courses ..... State-wide
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health) .....Flint
Nov. 7-8	Fifth Annual Postgraduate Lectures, American Academy of General Practice of Michigan and of Wayne County Detroit
Nov. 27-29	Institute on Alcoholism.....Detroit
Dec. 4-7	AMA Clinical Session.....Los Angeles

1952

March 12-14	MICHIGAN CLINICAL INSTITUTE .....Detroit
Spring	MSMS Postgraduate Extramural Courses ..... State-wide
April 9	Genesee County Medical Society's Cancer Day .....Flint
April	Highland Park Physicians Club Clinic Highland Park
May 1	Ingham County Medical Society's Clinic Day ..... Lansing
May 7	Third Michigan Industrial Health Day .....Flint
May 14	Wayne University Medical Alumni Clinic Day and Reunion.....Detroit
May 15	Jackson County Medical Society's Clinic Day ..... Jackson
June 9-13	AMA Annual Session.....Chicago
July	Annual Coller-Penberthy Medical Surgical Conference .....Traverse City
August	Third Annual Clinic, Central Michigan Committee, ACS Michigan Committee on Trauma, plus Michigan National Guard Medical Personnel, and Michigan Society of North Central Counties .....Grayling
Sept. 24-26	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION Detroit
Autumn	MSMS Postgraduate Extramural Courses ..... State-wide

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.



The Importance of

PREVENTING BORDERLINE NUTRITIONAL STATES IN CHILDREN

IN recent years increasing interest has been focused on the relationship between nutrition and the physical, mental and emotional development of children. It is now well recognized that listlessness and apathy in the child frequently may be nothing other than manifestations of a borderline nutritional state resulting from faulty food selection and inadequate consumption. Moreover, such sequelae of faulty nutrition often respond dramatically to improved food habits.*

For preventing borderline nutritional states in children due to food whims, poor choice of foods, or lack of interest in eating, Ovaltine in milk enjoys long-established usefulness. Its rich content of biologically complete protein, vitamins and minerals can supplement even grossly deficient diets to optimal nutrition. The delicious flavor of Ovaltine invites its acceptance and lends interest to eating when the appetite lags. Children particularly like Chocolate Flavored Ovaltine.

Three servings of Ovaltine in milk furnish the supplementary amounts of nutrients shown in the appended table.

*Baumgartner, L.: Wider Horizons for Children; The Mid-century White House Conference and Children's Nutrition, J. Am. Dietet, A. 27:281 (Apr.) 1951.

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FAT	32 Gm.	VITAMIN B_1	1.16 mg.
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CALCIUM	1.12 Gm.	NIACIN	6.8 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN C	30.0 mg.
IRON	12 mg.	VITAMIN D	417 I.U.
COPPER	0.5 mg.	CALORIES	676

*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving, they are virtually identical in nutritional content.

Cancer Comment

MODERN CANCER CONTROL

The Story of Michigan's Unique Plans for Detection

Thirty minutes spent in the office of a doctor of medicine can save a life.

It is within the power of many to escape death from cancer in exchange for a half-hour of his time. This is a new opportunity offered in a number of counties by Michigan doctors of medicine.

There is no compulsion for the patient to set aside that thirty minutes to save his life. There is no law or governmental regulation. His freedom is not restricted. It's voluntary.

This life-saving program is called the Hillsdale Plan for Tumor Detection. In simple terms it means that every medical doctor's office is a cancer detection center.

The detection plan was put in operation January 1, 1948, by the Hillsdale County Medical Society when the members were aroused by the results of a cancer survey conducted by the Cancer Control Committee of the Michigan State Medical Society. The Committee was aware that the lack of accurate data on cancer morbidity, its incidence and prevalence was a great handicap in cancer control. The Cancer Control Committee also realized that this scarcity of statistics made it a fertile research field and decided to have the pilot survey made. The Committee, therefore, initiated and was responsible for this survey.

During July, August and September of 1947, senior medical students from the University of Michigan collected data on cancer by using an outline developed by the MSMS Cancer Control Committee. The survey was conducted in Hillsdale County, Kent County, districts of Antrim, Charlevoix and Emmett Counties as well as districts of Baraga, Houghton and Keweenaw Counties.

The survey covered cancer patients of all ages seen by doctors of medicine or treated in hospitals within those areas during 1946. The 1,470 cases studied included 845 women and 625 men.

The published results sent the Hillsdale doctors of medicine into action.

According to the survey, more than two-thirds of the cancers developed in areas of the skin, breast, uterus and rectum.

All of these sites could be examined in the doctors' offices. As the Hillsdale medical men continued to discuss the revolutionary new plan, they saw other advantages. There would be no added cost to the medical doctor for extra office space or special assistants in the examinations.

Since every doctor's office would become a cancer detection center, they would not have to spend time away from their practice as they would if they examined the patients in a clinic or centrally located detection center.

This was the answer to early detection of cancer. It was a convenient way for the patient to save his life because most cancers are curable if recognized early and given proper treatment.

Thirteen out of eighteen doctors of medicine in Hillsdale County agreed to participate in the plan for tumor detection. Today there are fourteen physicians in active practice in the county, and twelve of them operate under the program.

Before the plan started in 1948, four doctors of medicine from the University Hospital at Ann Arbor gave the Hillsdale participating physicians refresher courses on cancer. Each of the instructors had extensive experience in the diagnosis of one of the four types of cancer to be singled out under the Hillsdale Plan.

Since persons above forty years made up the largest age group with cancer in the four sites, the original examinations were urged for them, but other age groups were not excluded. Now all ages of both sexes are encouraged to have the examination.

The detection examination procedure is simple. The patient makes an office appointment with the doctor of medicine of his choice. This maintains the important doctor-patient relationship.

When the patient appears a few days later, he is weighed and the temperature and pulse rate are recorded. The patient is also questioned on possible cancer symptoms. The physical examination

(Continued on Page 1106)

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MODERN CANCER CONTROL

(Continued from Page 1104)

which follows covers the skin, oral cavity, breast, genital organs and rectum.

If there is a suspicion or definite evidence a tumor is present, the patient is informed and arrangements are made to obtain a small piece of the suspected tissue for microscopic examination.

The entire procedure is no different than a routine office call for a cold or badly cut finger. It takes half an hour—the time required to listen to Jack Benny on Sunday night.

In a summary of the results of the 1947 survey, the Cancer Control Committee reported:

"Delay in the diagnosis and treatment of cancer is the most serious menace to its proper control."

Within a few days after the Hillsdale Plan went into operation, it paid off in results. A forty-two-year-old woman appeared for an examination. Her family doctor found a cancer at the vaginal entrance. The cancer, which was in an early stage, was removed before it could spread.

The Hillsdale Plan carried out the recommendations of the Cancer Control Committee with this early detection and treatment. The cancer for this woman was controlled.

The Committee also suggested that periodic examinations would prove valuable. Under the Hillsdale Plan re-examinations are recommended every six months. When the plan first began, the chief difficulty was experienced in getting the cooperation of patients to return after six months. Too many believed that one examination with negative findings gave assurance against cancer for an indefinite period.

After the plan was in operation for three years, this tendency by the patient not to return for a second or third examination was reduced.

More than 100 patients each month have been examined by Hillsdale doctors of medicine in the search for early cancers. Approximately two-thirds of the eighty-nine cancers found have been in the early or moderately advanced stages. They were detected soon enough to save the patient's life.

The Hillsdale Plan also considers that adequate records must be kept on the cancers which are detected and on the negative reports as well. The bookkeeping under this plan is kept simple, however.

A short form listing the five vital locations of cancer is stamped on the physician's record of the patient. Check marks are made opposite the locations listed on the card when the findings were negative, suspected or a biopsy is made.

The Hillsdale Plan doctor also has a tally sheet in which he lists the names of the patients, their sex and age in addition to the report of the examination. This tally sheet is sent to the Hillsdale County Health Department where the master records are kept on all cases within the county. These files are confidential.

The tally sheet does not give the location of the cancer, however. Special case reports are filed with the Hillsdale Health Department when a cancer is diagnosed.

The plan, which offers protection from cancer, has spread into other counties of Michigan and into many sections of the United States. There are twenty-six detection centers in Michigan, including fourteen counties which follow in general the idea of the Hillsdale Plan. The other twelve detection centers operate in five major Michigan cities. They are centrally located in the cities and the medical doctors come to the centers to examine all patients.

The detection center at Grand Rapids is being gradually combined with the Hillsdale Plan in Kent County, known locally as the Kent County Cancer Detection Plan. Approximately 500 persons were examined in one year at the Grand Rapids Detection Center. After the Hillsdale Plan was started in Kent County in April, 1950, more than 3,000 persons were examined for cancer in their own doctor's office the first year.

The fourteen counties in Michigan which are using the Hillsdale Plan are in various stages of activity. Not all of them follow the original plan exactly, but they are all on the alert for cancer and hundreds are examined. At least 900 persons a month are examined in Genesee County alone, for example.

In the fight against the disease, the Cancer Control Committee of MSMS also disseminates information on cancer to the high school students of the state. Committee representatives give talks before such school groups. This non-frightening awareness by the students also results in an awareness of cancer by the parents. The students hear the talks in school and insist that their parents

(Continued on Page 1120)

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Sulfamethazine N.N.R. 0.162 Gm.

a sulfonamide mixture . . .

This combination, when given in the suggested dosage, has been shown to provide the same therapeutic activity that is obtained when each drug is administered singly in the recommended dosage.

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Political Medicine

DOCTOR SHORTAGE

Early in July, 1951, Senator James E. Murray (D., Mont.), chairman of the Committee on Labor and Public Welfare, polled the governors of all states to gather information on the distribution of physicians.

"It has been proposed," he said in his wire, "that federal subsidies be used to persuade doctors to move to areas where there is an acute shortage of medical personnel." Then Senator Murray asked the governors for information as to whether they had too many doctors, not enough, or "just about enough doctors to meet the needs of its residents." He closed by saying that "it would be most helpful if we could have your answer to these questions within a week."

Governor Sherman Adams of New Hampshire within twenty-four hours replied to Senator Murray in part:

"The use of federal subsidies to be used as an inducement to persuade doctors to move to areas other than of their choice is a bold, unwarranted step in the direction of socialized medicine which the people of this state have already registered strong opposition to in communications to New Hampshire's Congressional representatives.

"It is inconceivable that there will ever be a time when there will be enough physicians to take care of all of the medical needs of any given community during every 24-hour period. To arrive at such a Utopia would require the stationing of a physician at every country crossroad with medicine bag, car and assistant.

"A much more realistic approach to the question of physician requirements has been worked out co-operatively by community leaders, the county and state medical societies . . .

"Generally speaking New Hampshire has good distribution of doctors with approximately one physician for every 810 persons. There is no area . . . where there is an absence of medical service . . .

"I know of no great demand in New Hampshire for physicians to move into what you might regard as critical areas. In my opinion the New Hampshire Medical Society through its own efforts provides medical coverage for all of the people of this state."

FAITHFUL DOCTORS vs. BRITISH BUREAUCRACY

It is hard sometimes for American doctors to fully understand what British physicians are going through in trying to practice under the British National Health Act.

I have just received a lengthy and interesting letter from a London doctor, who tells how a group of faithful and determined medics had the guts to stand up and fight . . . but in the end lost, only to try again. Here's the story:

A group of British doctors is now trying to raise funds to establish a new independent hospital because their old hospital has been taken over by the government under nationalization and turned into a "gynecological unit."

The doctors claim that because of the present state of affairs, local inhabitants are being deprived of their family doctor relationship which, at one time, was a highly respected feature of British medicine.

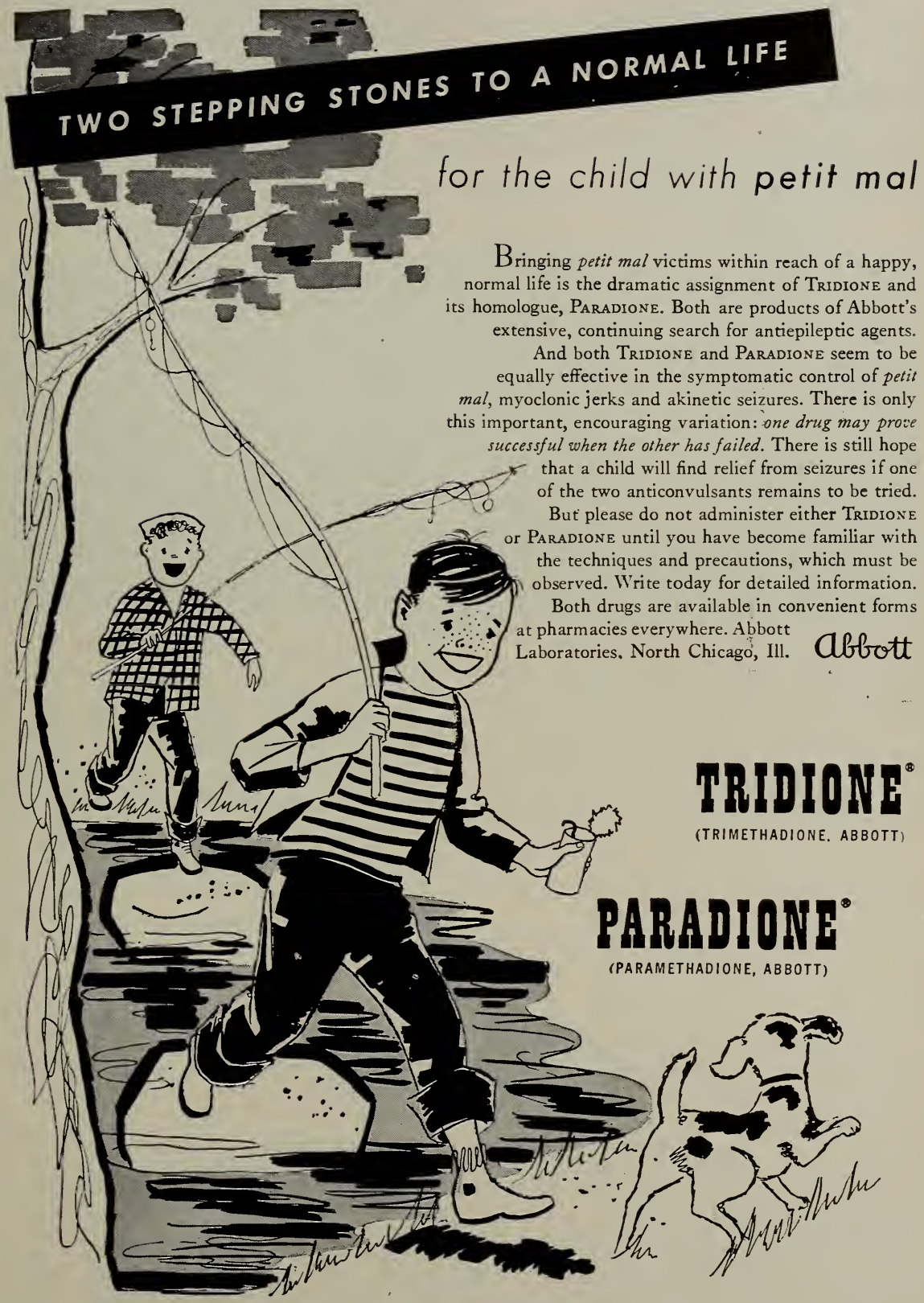
Before nationalization, Great Britain was served by two kinds of hospitals—municipal, financed by local taxation, and voluntary, which were financed by the public. The latter was regarded as setting the standard for British hospital practice.

In 1948 the state took over both municipal and voluntary hospitals and set up 14 regional boards to administer them. For a time all went reasonably well. The hospitals continued to be run by the same personnel as before, but the regional boards eventually began to exercise their new powers to rearrange and alter the establishments entrusted to them.

Among the first hospitals affected was the little (voluntary) Victoria Hospital in Kingston-on-Thames, Surrey. This forty-four bed unit was staffed by local doctors, who treated their own patients there under the supervision of a part-time team of specialists from London. It afforded an excellent service to the local people and, at the same time, enabled the doctors to keep themselvs up to date by personal contact with the specialists.

When, therefore, the regional board announced its intention of closing down the hospital, and using its building as a "gynecological unit" annex to a large hospital nearby, the staff and local population took every possible step to induce the board to change its mind.

When the order to close came, the doctors did not obey. They guarded their small hospital day and night to make sure it would not be "stormed." Meanwhile, every effort was made to get the decision overruled. There were petitions to Parliament, appeals by members of Parliament to the Minister of Health, local meetings and representations from the Boroughs concerned,



TWO STEPPING STONES TO A NORMAL LIFE

for the child with petit mal

Bringing *petit mal* victims within reach of a happy, normal life is the dramatic assignment of TRIDIONE and its homologue, PARADIONE. Both are products of Abbott's extensive, continuing search for antiepileptic agents. And both TRIDIONE and PARADIONE seem to be equally effective in the symptomatic control of *petit mal*, myoclonic jerks and akinetic seizures. There is only this important, encouraging variation: *one drug may prove successful when the other has failed.* There is still hope that a child will find relief from seizures if one of the two anticonvulsants remains to be tried. But please do not administer either TRIDIONE or PARADIONE until you have become familiar with the techniques and precautions, which must be observed. Write today for detailed information. Both drugs are available in convenient forms at pharmacies everywhere. Abbott Laboratories, North Chicago, Ill. Abbott

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FAITHFUL DOCTORS VS. BRITISH BUREAUCRACY

(Continued from Page 1108)

action by the British Medical Association and direct appeals and interviews with the new Minister of Health, Milary Marquand.

Local doctors even took turns to picket the hospital to prevent the board from taking possession. In this way they succeeded in keeping the hospital open for six months longer.

But all their efforts, eventually, were of no avail and they were forced to close the hospital in June of this year.

As a sop, the doctors were offered a twenty-bed chronic sick unit, discarded for hospital purposes in 1936. It has no sewage facilities on the ground floor, no running water in the wards, it has an inadequate operating theater, only a portable x-ray plant, no pathology, casualty or out-patient departments and no regular consultants. Thus the family doctors and their patients were deprived, not only of the facilities they had built up over fifty years, but of close association with consultants at the patient's bedside.

The Victoria doctors were so appalled by this prospect that, together with the local inhabitants, they set out to open a new, family-doctor hospital outside of the Health Service. Many British doctors admired the Kingston rebels for their stand, and are lending support. Lord Horder, the king's physician, has volunteered to be one of Victoria's consultants.—George F. Lull, Secretary, AMA.

AUSTRALIA FAILS TO REDUCE SICKNESS

One of Australia's youngest Liberal Party leaders, William C. Haworth, has come out flatly with the statement that "national health insurance has not reduced the amount of sickness."

Mr. Haworth is not inexperienced in the field of socialized medicine. Before becoming a member of the Australian lower house, Mr. Haworth was Minister for Health and Housing in the Victoria Liberal government, and is a member of the Pharmaceutical Society of Australia.

To document his case, Mr. Haworth drew upon the sworn testimony of Dr. H. T. Buckner as given before the United States Senate Committee on Education and Labor. Said the witness: "Average loss of time because of sickness among the foreign countries where the workers were compulsorily insured increased steadily during the first years of compulsory health insurance and has not declined in later years.

"Official reports from European countries with sickness insurance show their workers lost from 50 to 100 per cent more days per year than residents (of the United States)."

"The time has come," Mr. Haworth says, "when governments should concentrate on the fundamentals which are responsible for community sickness." He then lists as "fundamentals" such things as ignorance, a low standard of national hygiene, including "loosely policed" regulations for the preservation and cleanliness of food, and large numbers of substandard dwellings still in use.—*Christian Science Monitor,* July 3, 1951.

POLITICAL MEDICINE

In dedicating a new $40 million government medical research center at Bethesda, Md., President Truman got in another plug for one of his pet state welfare projects, compulsory "national health insurance." He said that many people couldn't afford to buy insurance in one of the non-profit health insurance organizations.

These plans charge exactly what they need to meet their claims. It is not even argued that a government bureaucracy could do business cheaper than a private company.

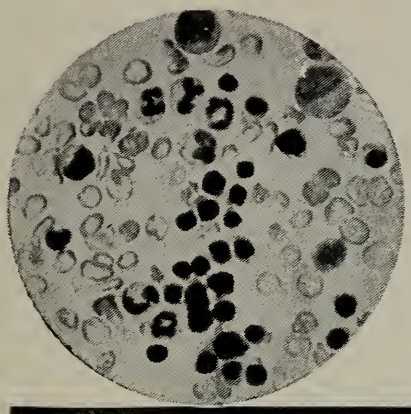
It follows that if an individual can't afford a private health policy, he cannot afford to pay a government agency the true cost of his insurance. Mr. Truman know this quite well. In essence, what he proposes is high taxes on some people to pay for those who contribute less than cost.

This is a wealth-sharing scheme, a system of political medicine under which medical care would be conducted with the same efficiency as the post office. It is a plan for new taxation, and to call it "insurance" is a fraud.—*Chicago Daily News,* July 19, 1951.

EWING PROPOSES "FREE" HOSPITALIZATION FOR SEVEN MILLION AGED

Federal Security Administrator, Oscar R. Ewing, whose public relations on Capitol Hill could scarcely be worse—unless he stepped into Acheson's shoes—has come up with a new booby

(Continued on Page 1112)



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EWING PROPOSES "FREE" HOSPITALIZATION

(Continued from Page 1110)

trap described by one Washington commentator as the "Ewing-Pink Idea."

Ewing in a statement issued on June 25 pointed out that his proposed scheme of Social Security hospitalization for the aged would utilize payment procedures already established by VA, the Children's Bureau, and Office of Vocational Rehabilitation, while the *"insurance* procedures would be largely those which hospitals have developed with Blue Cross."

Ewing is said to have claimed this bright idea was worked out with Louis Pink, former head of Blue Cross and New York State director of insurance. We shall discuss this proposal later. It is our guess the American Hospital Association will fall for it, hook, line, and sinker. It should be especially appealing to all those who seek something for nothing. The plan, says Ewing, would not require any more taxes. Costs would be charged to the Old-age and Survivors "Trust" Fund. How often does he think the Government can loot the same "trust" fund?

There is scarcely a member of Congress who has the guts to vote against give-aways for the aged. Many will recall that one prominent Republican said it would be "political suicide" to vote against H.R. 6000 in 1950. How many members of Congress will be inclined to feel it would be political suicide in 1952 to vote against Ewing's plan for "free" hospitalization for the aged?

THE MEDICAL PROBLEM IN AUSTRALIA

The Rt. Hon. Sir Earl Page, GOMG., C.M., F.R.A.C.S., F.R.C.S.(Hon.), Australian Minister for Health, addressed the Canadian Medical Association at its annual session in Toronto, August 14, 1951. He told of the fact that Australia adopted Socialized Medicine by one vote, but the administration in trying to put it into effect failed, and the government fell. A new regime has taken over and Sir Earl is the new Minister of Health. He is a prominent surgeon, is utterly opposed to socialism, medicine or other, and is in America studying out voluntary plans with a hope of using them as a basis for the new program to be introduced into Australia.

There are friendly societies there which in a way correspond to our voluntary plans. They are voluntary. The government of Australia plans help for their people, but not in a socialized manner. The plan at present is that the Ministry of Health will contribute to the friendly societies as a matching fund forty-five per cent of the medical costs of beneficiaries providing those beneficiaries are insured in the friendly society. The membership is voluntary, but the help will not come to those who are not farsighted enough to carry the insurance. Ten per cent of the charge must be paid by the family or the patient—this being an insurance that the program will not be abused.

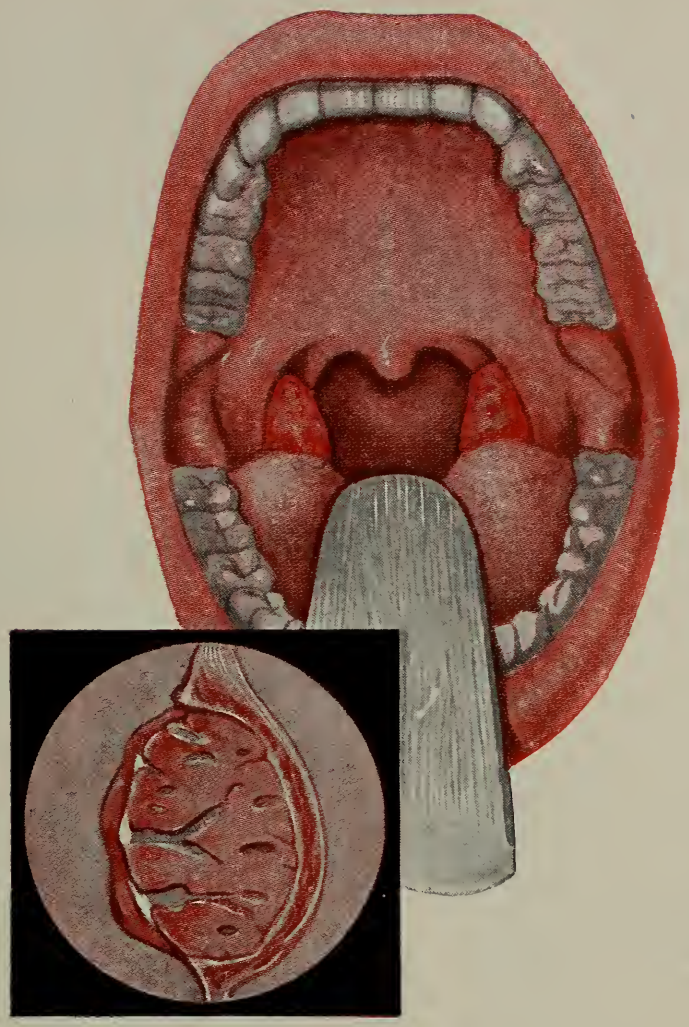
Sir Earl has studied many of the American plans, had an audience with President Truman, and is reported to have told him the compulsory insurance plan would never work, but would put the proposer out of office. Mr. Ewing and others were called into the conference but Sir Earl's opinion was not changed.

FEDERAL SECURITY AGENCY APPROPRIATION ENACTED

On August 31, the President signed into law the 1952 fiscal year appropriation bill for the Federal Security Agency (P.L. 134). Below is listed selected health items of interest to the medical profession:

	Funds available for fiscal 1951	Funds-voted for fiscal 1952
Venereal diseases	$ 12,863,500	$ 11,653,360
Tuberculosis	9,400,000	8,745,000
General Public Health	16,084,000	15,960,000
Communicable diseases	6,260,600	5,915,747
Sanitation & Industrial Hygiene	3,670,030	3,648,158
Hospital construction grants (new)	85,000,000	82,500,000
Hospital construction—Liquidation of authorized projects	110,000,000	100,000,000
Hospitals and medical care (operation)	29,024,000	30,200,000
National Institutes of Health	13,913,900	15,500,000
National Cancer Institute	19,886,000	19,500,000
Mental Health Activities	9,505,000	9,518,987
National Heart Institute	14,554,400	10,000,000
Dental Health Activities	1,954,850	1,598,654
Construction of Clinical Center, Bethesda, Md.	15,125,000	17,685,540
Vocational Rehabilitation — payments to States	20,600,000	21,500,000
Children's Bureau — Grants to States	30,250,000	31,500,000
Public Assistance grants —old-age, blind, disabled, etc.	1,280,000,000	1,150,000,000

(Continued on Page 1114)



in acute tonsillitis: "Excellent" responses, typical of the results obtained in a wide range of respiratory infections, Terramycin-treated, were noted in acute tonsillitis cases "within 48 to 72 hours, with rapid subsidence of temperature and physical findings."

Sayer, R. J.; Michel, J.; Moll, F. C., and Kirby, W. M. M.: Am. J. M. Sc. 221:256 (March) 1951

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(Continued from Page 1112)

FSA INSURANCE PROGRAM

Anyone who challenges the practicability of the (Federal Security Agency's compulsory) insurance program stands denounced in the FSA's speech-news releases as a "reactionary" who "is against health, against social security, against education, against a living wage, against everything that means anything to ordinary people, and in the end against our very liberty, our opportunity, our hopes for the future."

Because the American Medical Association announces that it is spending $1,500,000 a year to advertise its opposition to the scheme, its leaders are heralded as "apostles of reaction who have formed an unholy alliance to destroy the very principles of American humanity and national security." Yet it would seem that FSA, without announcement, has been spending much more of our taxes for its own propaganda.

There are, for instance, 32,000 FSA employes whose wages alone are budgeted at $92,000,000 a year. Any expenditure of their official time or of Federal funds to influence legislation is a crime punishable with a $500 fine and a year in prison. Nevertheless, investigators from the House Post Office and Civil Service Committee found last summer in FSA's files the minutes of a national meeting of FSA executives in San Francisco which set forth that "legislation" is among the "specific objectives which we are trying to reach through public relations."

Dozens of witnesses have gone before congressional committees to argue for health insurance as independent citizens. One got through 9,000 words of testimony before questioning disclosed he was a full-time Government employe, then in the Labor Department. This man later was employed by FSA.

All phases of the (Federal Security Agency) propaganda campaign, however, are subordinate to having FSA employes reach out through CIO and similar organizations and by direct contact indoctrinate key members of community groups . . .

As early as 1946 the country was traveled for this purpose by employes of the Social Security Board, Public Health Service, Children's Bureau, Office of Education, Agricultural Department and the United States Employment Service. In towns which they visited they conducted study courses in what they called the "formation of pressure groups"; then they arranged community meetings at which the speakers uttered words handed to them while other actors distributed Government propaganda, and claques rushed the adoption of resolutions demanding that Congress enact compulsory health insurance.

Documents found in recent months in FSA files by the House Post Office and Civil Service Committee . . . show that FSA's ten regional directors have been kept so busy at high-pressure public-relations work that during the past year it was officially proposed that their job descriptions be rewritten to show how to carry out a "planned program of leadership toward the achievement of goals" through "continuing contacts with the press and radio, labor unions, civic organizations and all other public groups."

Meantime there has been an official call for an even more aggressive campaign. And not only has Mr. Ewing called health insurance vital to the "home-front mobilization," but he has used the national emergency as a reason for also promoting disability insurance, liberalized relief and Federal aid for education from primary school to college.—Excerpts from an article by Charles Stevenson published in the *Saturday Evening Post,* June 9, 1951.

CONGRESS EXEMPTS VA AND PHS MEDICAL PERSONNEL FROM LAYOFFS

(Continued from Page 1102)

raises hopes of Congressional leaders for an October 1 adjournment.

The House also has approved a similar exemption from the job cut for all Public Health Service employes as well as Federal Security Agency personnel engaged in law enforcement, which includes Food and Drug Administration. This action was made when the House approved the $2.5 billion FSA-Labor Department appropriation bill. The measure then went to the Senate.

Mirror examination of the larynx requires little time, causes no pain and can be done by any physician.

* * *

There can be a great saving in materials and expense if health education materials are not geared too closely to a definite time. They should not be "dated or datable," but general in character, so long as their content is valid.

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Editorial Comment

A LESSON FOR ALL

There is a lesson for all Americans, and not simply for the members of the medical profession, in the message which will be brought to Seattle next week by Leone Baxter and Clem Whitaker, general manager and director, respectively, of the American Medical Association's national educational campaign against socialization of medicine.

That lesson was epitomized in an address which Miss Baxter made some months ago at a conference at Tulane University, New Orleans.

In explaining how the physicians of America have successfully opposed administration efforts to regiment them, she observed:

"Our conception of practical politics is that if you have a sound enough case to convince the folks back home, you don't have to buttonhole the Senator. He will hear from home, and he is prone to respect very highly the opinions from that quarter."

The result was summed up by Mr. Whitaker, in a speech at the same New Orleans conference, in which he said:

"When doctors finally were able to convince other groups that they were not only fighting for self-interest, but that they were fighting for the health and welfare of the American people, their support mounted in spectacular fashion and new allies joined medicine's cause by the thousands."

While this team is coming to Seattle to address the Washington State Medical Association, it is to be hoped that other groups will have an opportunity to hear them. For theirs is the story of how a vital phase of the American way of life is being defended in a truly American fashion.—Editorial, *Post Intelligencer,* Seattle, September 5, 1951.

DON'T SLAM THE DOOR

While no hard or fast rule can be followed in delivering a poor prognosis, the patient's interest is served best by stimulating hope and bolstering his morale, not by slamming the door in his face.

Few patients really want to be condemned despite their claims of ability to take it. The majority, unless they have become totally submissive, with loss of interest in life, will challenge a serious sentence either by resentment against the doctor or by denying its application to themselves. The physician's usefulness is thus severly limited since he has virtually denied the possibility of help from tomorrow's new developments or from other forces not readily evident. This serves no good or useful purpose.

Generally, when the outlook is poor, the patient's instinctive suspicions, the increasing limitations imposed by the progressing illness and the failure to respond to successive efforts at treatment are sufficiently meaningful and all too readily understood. Hope for the slim chance is the one thing left to the patient and he wants his doctor not to surrender or abandon him but to gain that chance for him. In these circumstances service to the patient is enhanced if a poor prognosis is not spelled out or illuminated.

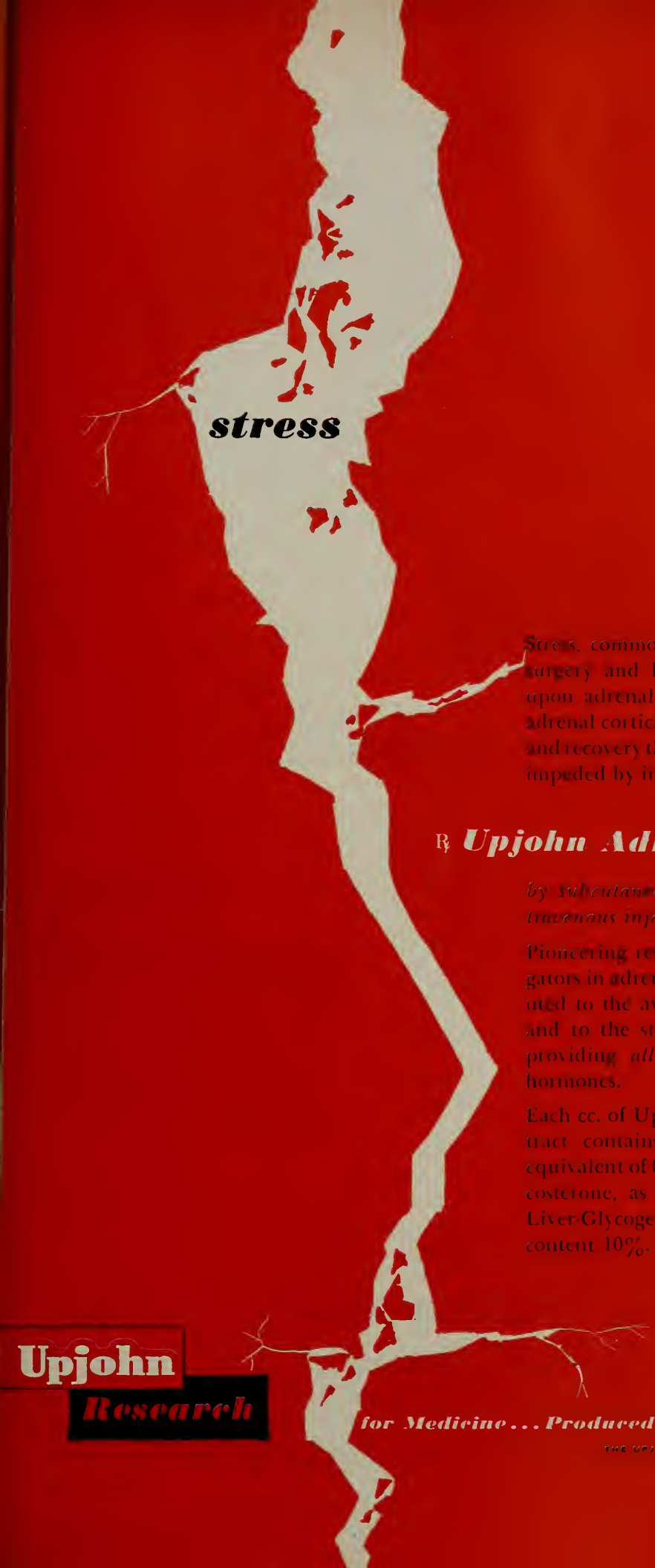
As important as it is to give a prognosis when it can be good or reasonably good, it is doubly important not to render an unfavorable verdict so that it will destroy morale or constitute abandonment of the patient.—W. S. Reveno, M.D., *Detroit Medical News,* August 13, 1951.

MATERNITY PATIENTS IN HOSPITAL

Earlier this year when the London Local Medical Committee became alarmed at the insufficiency of hospital beds for seriously ill patients it was suggested that among the steps which the Ministry of Health should be urged to take should be the issuing of instructions "that normal maternity cases are not admitted to hospital except where a responsible person certifies that home conditions make hospital confinement essential."

The Ministry, on the advice of the standing maternity and midwifery committee of the Central Health Services Council, has now issued a memorandum on this subject, the text of which is given in the current issue of the *Lancet.* This suggests that priority for booking hospital maternity beds should be given to (a) all cases in which there are medical or obstetric reasons in the widest sense of these terms and (b) adverse social conditions, especially bad housing. Advice is to be sought on

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"To Save Your Life"

Michigan State Medical Society Motion Picture

A 30-minute, 16-millimeter, sound color motion picture called "To Save Your Life" and produced by the Michigan State Medical Society goes directly to the citizen of tomorrow through the schools, and clarifies the policy of medical education to the citizen of today via public showings.

The film was premiered at the 86th Annual Session in Grand Rapids.

"To Save Your Life" is a straight-forward documentary of the preparation for medical practice. Every scene and word is true.

While the picture will act as a recruiting film to attract high caliber students into the medical profession, it also carries another concept: it is that the modern M.D. because of his ability, his long training, his educational background and the investment required to begin practice deserves a reasonable return both financially and socially for his services.

The picture reveals the long, exacting and costly process *every* doctor of medicine goes through in one form or another before he hangs up his shingle.

The message contained in the film will reach a wide audience not only in Michigan but in other states as well. Requests have already been received from both the AMA, the state medical societies, schools and colleges.

At the same time it will be released to other audience groups such as Parent-Teacher Associations and service clubs.

Anticipating the advent of color television, the show is also designed for this media. Just one screening on a Detroit TV station alone offers the opportunity for at least 500,000 persons to see the film. Of course, all TV stations in Michigan will telecast the film.

Until color TV becomes commonplace, "To Save Your Life" may still be televised although it will show up on the screen in neutral tones.

Film Production

The motion picture was produced by Doane Productions, of East Lansing. Scenes were shot on location at the University of Michigan Medical School, University Hospital at Ann Arbor, the Dearborn Veterans Administration Hospital, Michigan State College, Wayne University College of Medicine, Lansing's Sexton High School and Edward W. Sparrow Hospital.

MSMS Public Relations Counsel Hugh W. Brenneman narrates the film, and the script was written by John B. Kantner, Associate Public Relations Counsel.

While the picture was under production in April, actual shooting did not begin until May. The first month was taken up with script conferences and decisions on sequences.

Eight separate scripts were required during production. The first script was called a Shooting Script. This listed suggestions for filming sequences. The second was a Sequence Script. As the scenes were filmed, the order of the footage was recorded on this script along with the amount of film shot for each sequence. The scenes in this script were not in chronological order.

They were placed in the correct order in the third or Cutting Script. This script was used by the photographer in editing and cutting the film into roughly the proper order which would appear in the finished product.

A work print in black and white was then made from the directions on the Cutting Script. A work print is exactly like it sounds. Since there is a danger of marring the original color film if it is run over and over again during the final editing, this work print serves much the same as scratch paper. It can be run through the projector, forwards and backwards, stopped and started, as final revisions are made.

The fourth script contained the preliminary narration to fit to the scenes being photographed. This early narration was written as the picture was being filmed and served as an outline when the fifth script or second Preliminary Narration Script was written.

Cuts Necessary

At this stage of the production the work print and narration were approximately 55 minutes long. The picture had to be cut in half. Its

(Continued on Page 1120)



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LIQUID FORM—generally prescribed for most bottle-feeding cases because of the simplicity of formula preparation—just dilute with equal parts of water, previously boiled.

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length at that time was too long for television and for screening before smaller audiences.

This was a difficult task. Nearly all the footage told the story sought in the production of the film. At least 50 scripts were distributed to members of the Public Relations Committee, the Cinema Committee and to others participating in the production. All of these persons were asked to check the script for accuracy and to suggest possible cuts.

When the scripts were returned, they were carefully studied and the many excellent suggestions for cutting and changing were incorporated as the film was reduced in length.

Script No. Six was a cutting script for both the film and narration. Portions of the script and films were cut or expanded until both fitted as nearly perfectly as possible for time.

At this time Arch Walls, M.D., Russell F. Salot, M.D., and Arthur E. Schiller, M.D., of the Cinema Committee previewed the work print and narration before giving their final approval to the production.

But before the voice was recorded to the film, the Recording-Narration Script (No. 7) was rewritten in spots to tighten the picture and to follow suggestions of the Cinema Committee.

Even as the film was recorded with the voice, last minute changes were made to improve the final Finished Script (No. 8). Music was added after the voice was recorded.

Authentic Ring

The film has a ring of authenticity because all the sequences were shot right where they happen every day of the year in the doctor's office, hospital, university, college or high school. All doctors and organizations requested to participate gave their time freely.

There are a total of more than 260 characters in the motion picture. Only 95 of that number could be classed as extras in the Hollywood sense in that they make up the backgrounds of classrooms and street scenes. At least 170 persons play prominent parts in the sequences.

Although no professional actors were retained, those taking part in the picture turned in natural performances which provided a true documentary feeling throughout the picture. When the script called for a doctor, a real doctor of medicine was used; thus another touch of realism was added.

As more and more persons witness the film, the full impact of the high, exacting and costly requirements necessary to become a doctor of medicine will become clear.

"To Save Your Life" begins with the birth of a baby. It is a graphic opening. The balance of the picture is just as graphic in its message to all those who may be interested in pursuing a satisfying profession.

At the same time it reaches those who have developed distorted thinking against the doctors of medicine.

When the food for thought in the film is digested, public digestion of medical policies should be improved.

MODERN CANCER CONTROL

(Continued from Page 1106)

take advantage of the Hillsdale Plan which may be operating in their community.

One senior high school girl at West Branch recalled the talk by a representative of the Cancer Control Committee when she was receiving a physical examination before graduation. She had noticed a lump on her breast and mentioned it during the examination. It was cancer, but an early cancer which was cured.

Elsewhere in the United States, others are being given the opportunity for protection against cancer through the plan which began in the rolling countryside of Hillsdale County in Michigan. Medical men in many states have asked for information on the Hillsdale Plan. Recently requests for information have come from Canada, Germany and South Rhodesia, Africa.

The Hillsdale Plan for Tumor Detection offers hope for thousands who would otherwise die from a cancer which might go undetected until it was in an advanced stage. This successful voluntary health plan is being continued in Hillsdale County. It will be continued by doctors of medicine as long as people are willing to trade half an hour for a lifetime.

One of the outstanding advances of the past few years in cancer therapy has been the development of combined techniques and treatment in which the radiotherapist and surgeon co-operate.

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*Reference: MacBryde, C. M., et. al., *A New Synthetic Estrogen*, J.A.M.A., 123: 261: 264-(10-2) 43.

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COMMISSION RECEIVES AMA VIEWS ON MEDICAL ASPECTS OF TRAINING PROGRAM

Dr. James C. Sargent, chairman, Council on National Emergency Service, AMA, has presented to the National Security Training Commission for consideration "five cardinal elements, essential to the health and medical care of our Nation." Points made by AMA:

1. Continuation of pre-professional and professional education for qualified students—youths whose aptitude or previous accomplishments indicate they can make their best contribution to the nation as trained professional men should be placed in a category at or before reaching age of induction that will permit them to continue their education without interruption.

2. Performance of pre-induction, induction and periodic reserve physical examinations—use of full-time medical personnel of armed forces for these purposes is undesirable and unnecessary. Accordingly such examinations should be performed by civilian physicians on a fee basis or by reserve personnel, for which reserve credit would be given.

3. Extent of medical services to be provided members of National Security Training Corps—(a) Corrective treatment and rehabilitation of 4-F's should not be assumed by the Federal government as this would merely be another form of socialized medicine. (b) Medical care during basic training should be same as that currently furnished personnel of armed forces and whatever added medical personnel is required should be obtained without enlarging medical corps of the three services. (c) Medical care should not be provided during reserve status for conditions not arising as direct result of active duty.

4. Eligibility of National Security Training Corps members and reserve components for veterans medical benefits—AMA opposed to extension of such care for non-service-connected conditions, to peace-time veterans. Use of VA facilities for such purposes would add growing strain on health and medical manpower resources.

5. Source and selection of medical and allied professional personnel—AMA favors establishment of a national civilian agency to insure the proper distribution of medical and other health reserves between civilian and military needs.

KOREA WOUNDED RETURN TO DUTY

Surgeon General George Armstrong, back from Korean inspection trip, reports Army Medical Department is functioning at a high rate of efficiency and contributing to troop morale. Among his findings:

1. Out of every 100 wounded men, an average of seventy-five eventually return to duty, twenty-six without leaving Korea, thirty-five more without leaving Japan and fourteen after hospitalization in this country.

2. Death rate of wounded has been reduced to 2.5 per cent, in contrast to 4.5 per cent in World War II.

3. First aid is given in almost every case within 30 minutes; the exceptions, Gen. Armstrong learned from wounded, are generally confined to situations where the aid man attached to the unit also has been killed or wounded.

4. The new drug *primaquine* gives promise of becoming the first real cure for malaria; if it stands up under extensive testing, it should end the current problem of suppressed malaria breaking out after Korean veterans reach this country. The outbreaks, Gen. Armstrong believes, are not as serious as might be because of prompt and effective detection and treatment in this country.

MATERNITY PATIENTS IN HOSPITAL

(Continued from Page 1116)

social conditions through the local medical officer.

Such advice follows the existing practice at many maternity hospitals and units. Since in addition the Ministry proposes that the minimum period of stay should be 10 days—"preferably extending to 14 days"—together with the usual provision of a margin for emergency cases, it is difficult to see how the new suggestions will release many beds. It is also suggested that some maternity beds in suitable hospitals should be put at the disposal of general practitioners for the care of their patients.

The memorandum states the difficulty that it costs more to have a baby at home—extra costs for attendance, bedding equipment, fuel, and the provision of food for the mother—but it makes no suggestion for overcoming this important deterrent to home confinements. Moreover, maternity and general patients cannot be mixed in the same units, and unless the Ministry's proposals lead to the closing of whole wards, which seems unlikely, it is difficult to see how the new memorandum will meet the wishes of the doctors who want more hospital beds for other cases.—*The Times,* London, England, August 17, 1951.

As a primary treatment for cervical cancer, radiotherapy is more efficacious than surgery.

* * *

The practicing physician should not be overly optimistic over present achievements, nor overly pessimistic about the future of chemotherapy in cancer. The work will go on and something quite probably will be achieved—but, it cannot be hurried.

The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
VOLUME 50 OCTOBER, 1951 NUMBER 10

Cysts and Fistulas of the Mouth, Head and Neck

By James Milton Robb, M.D.
Detroit, Michigan

ANY LUMP in the head and neck should be a stopsign, a warning for a more thorough investigation. Each one working in the neighborhood should have clearly in his mind the embryology, histology, pathology and anatomy of the face, mouth, and neck. Each year this becomes more challenging, for with the increase in the percentage of the aged of our population and a corresponding increase in malignant conditions one must be more alert to any type of swelling.

For this discussion we shall limit ourselves to cysts and fistulas of the mouth, head, and neck.

Most of these cysts and fistulas arise from congenital rests and tracts. Charles Blassingame,[2] Colby Hall[5] and Paul Moore[11] have recently stimulated a renewed interest in these conditions.

In the diagnosis of the cysts and fistulas it will help to determine the size, depth and ramifications if radiopaque oil is injected into them and x-rays are taken. Also, at surgery, if compound tincture of benzoin is injected into the sinus or fistulous tract, it will facilitate the removal since the tract will have a brown color. The compound tincture of benzoin will not spread through the tissues as liquid dyes sometimes do, should one open into the cyst or fistula.

Fistula Auris Congenita

This is a sinus tract found in the region of the external ear. It consists of an opening in the skin with a tract leading down through the tissues to a blind pouch or cystic dilatation in close proximity to the cartilage of the auricle. A better name for it would be "auricular sinus."[4] It may be inherited. It is derived from the first branchial cleft.[3] There are some who contend that it has its origin in the faulty union of the six tubercles around the posterior end of the first cleft which fuse to form the external ear.[6,7] The proper treatment is complete surgical dissection of the fistulous opening, the tract and the blind pouch or cystic dilatation. Any secondary fistula leading off from the main tract or pouch should be removed.[10] A shallow sinus without a cystic dilatation can be destroyed by use of an electrocoagulation current.

Dermoid Cysts

These cysts develop as congenital inclusions of displaced dermal cells along lines of embryonic fusion. They occur in the midline of the head and neck, about the eyes and orbits, about the nose, and in the floor of the mouth and submental and submandibular regions.[13] They should be removed by surgery. Those which occur in the orbital region, occipital region and nose may extend down to and through the periosteum and bone. A portion of the periosteum should be removed and the tract or sinus in the bone should be curetted clean or cauterized with the electrocoagulator. Dermoids of the floor of the mouth above the mylohyoid muscle can be removed through the mouth. Those in the submental and submaxillary region and those which have broken through the mylohyoid muscle and occur both in the floor of the mouth and beneath the mandible should be removed through the neck. Those which are badly infected are best removed externally through a submental incision. All incisions in the submental region should be made in a horizontal plane. Vertical incisions are inclined to scar and interfere with the elevation of the chin.

Presented at the Fifth Annual Michigan Clinical Institute, Book-Cadillac Hotel, Detroit, March 14, 15 and 16, 1951.

Sebaceous Cysts

Sebaceous cysts behind the ear, if single, can be dissected out readily by making an incision directly over the cyst. If, however, there are multiple openings or tracts, as are occasionally seen, then a curvilinear incision should be made 1 to 2 cm. back of the cysts and the skin carefully reflected up with the aid of a binocular loop and the entire mass removed. The skin should then be brought back to position and closed.

Cysts in the Region of the Maxilla and Mandible

Embryonic oral epithelium normally has the potentialities of developing several different types of adult structure: namely, squamous cells, mucous glands, salivary tissue, tooth buds (enamel organs), thyroid tissue, and Rathke's pouch of the hypophysis.[16] They may be classified as:

1. CYSTS OF THE JAWS

Ectoderm (Primary in Jaw)

Congenital	*Dental Epithelium*
Fissural cysts	Odontogenic cysts
Nasoalveolar	Follicular (primordial)
Median	cysts
Globulomaxillary	Radicular (cholesteatoma)
Nasopalatine	Periodontal cysts
Incisive canal	Dentigerous cysts
Cysts of papilla palatina	Cystic odontoma
Dermoid cyst	Ameloblastoma (adamantinoma)

2. CYSTS ARISING FROM THE SINUS MUCOSA

If the cysts become large or encroach upon the maxillary sinus, they should be removed.[14] These and also those that arise in the maxillary sinus should be removed by the Caldwell-Luc approach. All adamantinomas (ameloblastomas) should be removed with extreme care completely as they tend to recur and approximately 45 per cent become malignant.

Ranula

Ranula is a thin-walled, epithelium-lined cyst in the floor of the mouth, soft, easily compressible and fluctuates on pressure. Some say it develops from sublingual gland and ducts. It would seem that the larger ones arise from the cervical sinus. Complete uncapping of the cyst with removal of its lining is the treatment of choice. If one is suspicious that any lining is left, it should be destroyed by superficial electrocoagulation. Perforating rings have been used satisfactorily in young children. The use of sclerosing solutions has not proven satisfactory except in very small ranulae and in small recurrences of previously excised cysts. An exception to this rule, however, was a most difficult case in which, every other treatment having been tried, apparent success was finally attained by packing the cavity with gauze soaked with a sclerosing solution and left in place for more than two weeks.

Cystic Hygroma

A cystic hygroma may appear in any part of the body but over 90 per cent have been found in the neck. In infants and children they are more common in the submental and submaxillary region. Paul Moore states very concisely that cystic hygromata are "sequestrations of lymphatic tissue which retain their independent power of irregular, peripheral, penetrating growth and their ability to secrete lymph." Although they usually extend slowly, sometimes producing pressure on the pharynx, larynx and even the trachea and esophagus, at times they extend rapidly interfering with both respiration and swallowing. Microscopically cystic hygroma and lymphangioma cannot be distinguished. They react identically to radium treatment, and many believe that the two lesions are of the same nature. Lierle[8] reported a case of lymphangioma of the tongue and floor of the mouth and in the same patient a cystic hygroma of the neck. The treatment is complete surgical excision of all endothelial tumor tissue. If the tumor is large, the injection of sclerosing solutions will shrink the cyst making its removal easier and safer.

Thyroglossal Cysts and Fistulas

Midline cervical cysts and fistulas usually arise from the thyroglossal tract. They may be located anywhere from the thyroid gland to the foramen cecum of the tongue. And they usually pass through the body of the hyoid bone and frequently have small tracts or branches leading from them. Practically all of these cases have been opened previously with the assumption that they are localized cysts. The treatment is complete surgical removal of the fistulous opening in the neck, the tract, a section of the hyoid bone and any cysts or accessory tracts present. I have never had a success with the operative procedure on these cases unless a section of the hyoid bone was removed at the time.

Branchial Cysts and Fistulas[1,9,15]

Cysts and fistulas in the side of the neck at and above the hyoid bone arise from the branchial apparatus. These cysts are movable and rise and

fall on swallowing. They may be aspirated and injected with radiopaque oil to determine their size and extent. The treatment is complete surgical removal.

Lateral Cervical Fistulas

Lateral cervical fistulas located below the hyoid bone are said to arise from the thymic tract. There are some who feel that they arise from the branchial apparatus and are the same as branchial cysts and fistulas. Hamilton Bailey states very definitely that "histologically a branchial fistula is usually lined by columnar epithelium, and its walls sometimes contain muscle. There is no reason why a thymic bud should contain these elements." These fistulas usually enter the pharynx at the tonsil fossa. Treatment is complete surgical removal of the fistulous opening in the skin, the tract and the tonsil if it be present. This can be facilitated by passing a filiform bougie in the tract and using it as a guide. Horizontal step-ladder incisions in the neck as one dissects the tract up to the pharynx will aid in its removal.

Laryngocele

Laryngocele, of which we had had but one, develops from the ventricle and pierces the thyrohyoid membrane. It is a cyst filled with air and, although seen very rarely, should be in the minds of those considering cysts of the neck.

Conclusion

In conclusion, let me stress the importance of early recognition of any lump that may appear in the region of the head and neck.

There is only one satisfactory treatment, namely, complete surgical removal. But there should be a thorough understanding particularly of the embryology and anatomy of the head and neck before surgical intervention.

Because he is daily scanning this field, upon the otolaryngologist rests much of the responsibility of early diagnosis and surgical care of this problem.

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MSMS

BUREAU OF LABOR STATISTICS REPORTS MEDICAL COSTS GO UP SLOWER THAN OTHER FAMILY BUDGET ITEMS

The American middle-income family is paying more for almost everything—*but medical care costs are going up slower than any other major item in the family budget.* This is reported by U. S. Bureau of Labor Statistics, based on its mid-1951 survey of living costs. (To obtain trends, BLS spot-checks prices of specific categories of goods and services; a number of union wage scales are tied to this survey.) The BLS report estimates medical care and drug costs in June at 54.7 per cent above the average for 1935-39. In contrast, clothing costs were up 104 per cent, housefurnishings 112.5 per cent, household operations 61.7 per cent, recreation 68.3 per cent, personal care (such as haircuts, toilet goods) 93.69 per cent and transportation up 71.6 per cent.

This trend has been under way for some time. BLS, a Labor Department agency, estimated medical care and drug prices averaged 47.9 per cent above 1935-39 for all of 1950. Prices of most other goods and services last year ranged higher—in about the same proportion as prices of June of this year.

BLS gave this breakdown for June, compared with the pre-World War II average: all physicians' fees up 44.7; general practitioners' fees, 44.8; surgeons' and specialists' fees, 43.4; obstetrical fees, 65.2; dentists' fees, 59.4; hospital rates, 161.4; optometrists' fees, 34.9; prescriptions and drugs, 28.3. The survey showed that group hospitalization insurance had risen 2.9 per cent since December, 1950, when the agency first began counting this item in its cost of living formula.

Medical care and drug costs were 54.7 per cent more than prewar and medical care minus drug costs 60.5 per cent, in June. In contrast, *food prices during the same period soared 126.8 per cent, or more than double medical care cost.*

The BLS report complements the results of a recent national survey of physicians' incomes conducted by the Commerce Department and American Medical Association. It showed that increases in physicians' incomes since 1929 have been slightly below the increase for the general population (See *Capitol Clinic,* Vol. 2, No. 30).

A Geriatric Philosophy

By Frederick C. Swartz, M.D.

Lansing, Michigan

MUCH OF THE medical literature of the day is filled with the experience of the various specialists with our aging population. From these many sources we are obtaining much valuable information that helps us to treat these geriatric situations. The specific geriatric problem that is faced under these circumstances, however, has its origin more deeply rooted in the hereditary background and the past life of the patient. Even further than this, the problems of geriatrics spill over into the fields of politics, government, labor and management. It is the purpose of this paper to take the reader to the mountain top to try to get an over-all picture of the many facets of the entire problem so that a geriatric philosophy may be formulated—a philosophy of living that can be applied to all ages, so that when the more advanced years are reached it will be with enough vigor and interest that many of the present distressing aspects of geriatrics will be minimized.

A survey of the factors contributing to the birth and growth of this problem is not pertinent to this article. Suffice it to say that, due to the agricultural and industrial revolution and to the great advances of medicine and the allied sciences, man's life span has increased from about twenty-five years two thousand years ago to almost sixty-seven years as of 1948 (this last figure applies to the United States). It is estimated that 7.7 per cent of the population of the United States at this time is sixty-five years or older as compared with 2.6 per cent of the population one hundred years ago. This means that about eleven million people have reached or passed our now accepted age of retirement. Many of these are chronically afflicted or disabled and need hospitalization or domiciliary care.

In any discussion of geriatrics much emphasis seems to have been laid on this latter group, but we must remember that this is not such a large group from a geriatric standpoint since 50 per cent of the nation's chronically ill are below forty-five years of age. Many more of the group above sixty-five years constitute a problem for their children with whom they are forced to live. The most tragic aspect of these and many of the remainder of the group is the fact that much of their interest in living is taken from them when they are forced to retire. Only approximately one person in twenty retires voluntarily at the age of sixty-five. They are looked upon as an aged, sexless, non-contributing group that have long outlived their usefulness. A depression born of a "not wanted" feeling soon prevails and the individual stops living and begins vegetating.

Aside from the actual distress to the aged group, there is another aspect of this geriatric problem which strikes at the very heart of our body politic. By a study of this problem, especially in England, and of our own country's publicity regarding Social Security, retirement benefits, and so forth, we can with a jaundiced eye look forward to the time when fewer and fewer of the population will be the contributing force to production, and a large part of their efforts will be expended taking care of the older group who have been retired or have become victims of chronic disease. It has been pointed out by some insurance companies that, at the present rate of survival, the time can well be predicted when there will be one person in retirement for every one in actual production. With this specter influencing our thinking it would seem that production and manufacturing would have to proceed at a slower rate, that there would be a good chance that our standard of living might fall because of the heavier burden on the producing population, that direct and indirect taxation might become unbearable, and that the policies of government and industry would become more conservative and then the race and the nation, like the individual, would proceed into senescence. To prevent the above eventuality, to care for the chronically ill and destitute, to provide for the remainder of the aged group a place in our homes, our industry, and community life so that a long life can be synchronized with real living is the problem of geriatrics.

Geriatrics is defined as that department of medicine which treats the diseases of old age. This strict definition is neither applicable to the specialty nor broad enough to cover the entire problem. This problem really encompasses the entire life span. The aging and dying processes begin with conception and are actually more rapid in this physiologic period. As the child grows in the uterus of the mother, he develops many structures

Presented at the Fifth Annual Michigan Clinical Institute, Book-Cadillac Hotel, Detroit, March 14, 15 and 16, 1951.

which later on and especially at birth become functionless, wither away and die. Subsequently other structures, notably the thymus gland and ovary, suffer the same fate in the living body. In fact, all the cells of the body except those of the nervous system participate in this birth, growth, and death cycle. Thus, "In the midst of life we are in death." It can readily be seen then that the architecture of the geriatric problem has its beginning with conception and runs through the entire span of life. It is hardly necessary to have to point out that at the foundation of this structure lie all the hereditary factors which contribute to good health and long life. Like the pediatrician who not only treat the ills of the child but tries to prevent them by guidance of those in good health, so the geriatrician must understand the problem of aging from birth to the grave; but, unlike the pediatrician, his greatest achievement will be measured not only by the lessening or a postponement of the inevitable evidences of illness and degeneration but also by the depth and breadth of real living that can be offered to an aging population. We do not necessarily think of geriatrics as a new specialty but as a new scientific approach to the care of all people so that advice and treatment of a local disturbance will be fitted into a long range program for the preservation of good health and the postponement of senescence.

The problem of geriatrics can be roughly divided into two major tasks for solution today. One has to do with the present aged group, largely represented by eleven million persons in these United States. The other concerns itself with all those millions who will one day be a part of a much larger aged group. The vast majority of our present group find themselves as pioneers in a new realm which had previously been so little explored that there are no guideposts to follow. They are totally unprepared by previous training to make the necessary adjustments to this new environment. Of course, the adjustments are not only on the side of the aged; those of the younger group, too, will have to learn to make an adjustment to this large segment of the population of which they will one day be a part. Because this lack of preparation and difficulty of adjustment may by education be corrected, many phases of the present problem, we hope, will disappear in the decades to come.

For the solution of the problems of the present aged group the following thoughts suggest themselves: First, more and better hospital facilities to care for the chronically disabled. Second, convalescent institutions where the marginal chronically ill may be rehabilitated. Third, suitable housing facilities where the well but destitute or those of moderate means can go to live among their contemporaries. Fourth, educational programs by sociological and medical agencies directed toward the children with whom the aged live so they can better understand the problem they are facing and learn how to cope with it to the satisfaction of all. The practicing physician may well be able to suggest to the children where this problem arises the necessity for a private room and, if possible, a small allowance that will permit the older individual to have some privacy and in a small way direct his own financial matters. He should also be given definite tasks to perform and be consulted from the standpoint of advice in order to make him feel as though he were still wanted and had something to contribute. It is important to be gracious to the friends of the older individuals and also to be firm in the supervision of his conduct and to insist on neatness and cleanliness. Fifth, educational programs directed toward the aged living with relatives so that they may better learn to live with others who must by necessity take over the more dominant role in the management and responsibility of the home. Here, too, the physician is the logical one to suggest to his aging patient means for the fulfillment of the above ideas. It does not take too much effort to indicate that the patient or the oldster keep his ideas up to date and not live too much in the past. It does not take the older individual long to learn that by keeping clean, neat, and busy he will be wanted and appreciated by his fellows. Sixth, the establishment of groups of aged people for social and intellectual interchange of ideas and interests. Seventh, medical attention which has been tinged with a well-rounded geriatric philosophy and experience.

The second aspect of the problem really concerns all the people not now classified as aged. Just as our aged group today represents more vigor and greater numbers than a similar group fifty years ago, so the geriatric group of the future will have more good health and even greater life expectancy and consist of a greater number of individuals than the present group. And thus it can readily be realized that the geriatric problem of ten to twenty years hence will be entirely different from the one of today. That is, it can be different if we begin now to direct some major educa-

tional effort toward the children, the youth, and the pre-aged group. The child must again be taught reverence and respect for his elders. We do not mean by this any type of blind ancestral worship but a true realization that age and experience are educational and the oldster really has something to contribute if given the opportunity. To the youth and young adult, the above idea must be developed further. In addition, it must be pointed out that to the child the young adult is actually the oldster. He will be in a position to receive some respect due his age and an important duty evolves here, namely, he should merit this respect! In other words, even in these early chronologic years, the relationship of the aging to aged is established.

At this point it is necessary to emphasize that many of the so-called physical infirmities of age stem directly from the lack of condition. Great numbers of individuals after leaving high school or college settle down to a routine of bread winning which uses only a small portion of their muscular or physical bodily equipment. Under these circumstances it is very easy to understand why the physical horizon becomes cramped, why the hand shakes, and why the gait becomes uncertain and tottery. This being true, it behooves the young to continue some type of physical development and exercise throughout life instead of dropping all ideas of physical development when they leave school.

Forgetfulness and mental retardation result largely from the lack of attention and failure of concentration. This can largely be prevented if we will all continue to encourage some habits of study learned in school. Some serious reading and thinking should be a part of everyone's daily life. The muscles are strengthened and the wits are sharpened only by proper exercise and development.

Hobbies, problems, or interests, other than the bread and butter kind, should be encouraged, first, for a fuller life and, second, for a haven to fly to when enforced retirement does come. Wise indeed is the man who becomes efficient in several fields of endeavor as it assures him of security in a way that nothing else can. It provides financial independence. It gives him the feeling that he is still standing on his own two feet and contributing something to his fellows. Much emotional energy is expended and happiness is blighted for many people because of their almost constant concern about the passage of time. Their continual search for evidences of the aging process, as they believe them to be, and then extreme dread of the inevitable may be factors that can easily bring on premature aging. They must be taught to realize that time as they are thinking of it is an invention of man, but age as reckoned by the physician has to do with the physical, emotional, and mental development in the individual; many are young at sixty and others are aged at forty-five. To those who are really living, the wrinkles and gray hair do not represent merely the passage of time but are the combat ribbons of a distinguished soldier of life.

Articles appear in the lay press from time to time that are pessimistic indeed to our present aged group. In these writings it is pointed out that Newton at twenty-four had already laid the groundwork for his theory of gravitation; that Napoleon had shown his remarkable ability long before thirty; that Hannibal had crossed the Alps before thirty; and that Alexander had conquered the then known world at that age. It cannot help but be depressing to those past thirty years of age to realize that they have passed the years of golden opportunity and that there can be nothing left to do but to die as gracefully as possible. But, these statements are made without the realization that in those days life expectancy was hardly more than thirty years, and if contributions were to be made, they had to be offered at an early age. The very sporadic nature of the contributions mentioned and the slowness with which the young population applied these contributions constitute an indictment against youth. All the advancements of the last half century, which are greater in magnitude than those accomplished in any period of a thousand years, occurred at a time when our population was growing rapidly older. One cannot help but feel that this is not mere coincidence. Realizing the increased vigor and value of the aged group has caused many firms to revise their retirement ages upward. And now to emphasize the fact that the aged group have representatives every bit as illustrious as Newton and Napoleon, I have but to mention the name Hahnemann who became discontented with retirement at the age of eighty, fell in love with a woman of thirty and married, went back into practice, and collected a gallery of paintings before he died at eighty-eight; Titian at ninety-eight painted the "Allegory of the Battle of Lepanto"; Michaelangelo took up poetry at the age of sixty and wrote his sonnets; Handel composed "The Triumph of

Time and Truth" at the age of seventy-two; and Goethe completed the second part of Faust at eighty-two. In our modern era I have only to mention the names of Vice President Barkley, Ethel and Lionel Barrymore, Winston Churchill, Bernard Baruch, and Connie Mack, and I am sure that in every community there are outstanding members of this group who, in their own way in their own circle, are doing a job above and beyond the call of duty and years. One certainly wonders about the wisdom of an ironclad rule of retirement at the age of sixty-five when 41 per cent of the United States Senate are sixty-five years or older, 21 per cent of the House of Representatives are sixty-five years or older, and Poor's *Directory of the Top Business Executive* lists 28 per cent of the 500 consecutive names as being sixty-one years or over.

Dr. Theodore Klumpp in his article, "Is Man's Youthful Life Ended at 65?" states, "More precious than oil or fertile soil, than ore or metals, than trees or an equitable climate are the human resources of the country. All other things were here when Columbus discovered America, but it took intelligent, industrious men to make our country what it is today. Let us not waste our greatest God-given resource."

In ages past, what few people there were who arrived at advanced age were either allowed to wander off in the woods and die or they became the despotic rulers of family groups or communities and enforced their wills upon the younger people. The very size of the present problem makes either one of these solutions untenable. Even though we try to attack the problem as objectively as we can, we cannot rule out the subjective element, as the problems outlined are not those of somebody else but really our own as we will one day make up a part of this aging group. The solutions arrived at must be fair and just for every age group. More than retirement annuities and social security, one should be concerned about insurance against emotional poverty, loneliness, and disillusionment. This can only be done by keeping one's eye on the distant goal, heightening one's intellectual aspiration, and making an effort to maintain that physical vigor that will bring us to the end of our journey, having used our God-given talents to the fullest, to hear the accolade of the Master: "Well done, thou good and faithful servant; thou hast been faithful over a few things, I will make thee ruler over many things; enter thou into the joy of thy Lord."

Surgical Lesions of the Upper Abdomen in the Newborn and Infant

By Clifford D. Benson, M.D.

Detroit, Michigan

DURING the past ten years great progress has been made in the surgical care of the newborn and infant with anomalies and other conditions arising in the upper abdomen.

It is not of common occurrence, but in the newborn we occasionally have a baby who is born with a direct communication between the chest cavity and the abdominal cavity, a so-called "upside-down stomach." When this occurs, many of the organs of the abdomen have herniated into the chest. This can be a serious lesion to the newborn because of the pressure of the organs on the lungs and interference with normal breathing. These infants will have difficulty in breathing and be blue. They can be temporarily relieved with oxygen, but because of the mechanical difficulty in breathing or pressure causing vomiting, these infants have to be operated upon and are surgical emergencies. With improvements in the anesthesia that have taken place during the past decade, doctors trained in anesthesia can insert a small tube through the nose into the windpipe of these infants, and the abdominal cavity can be opened and a correction made of the anomaly. In other words, the organs of the abdomen can be brought out of the chest and down into the abdominal cavity and the defect closed. The mortality in this condition without surgical treatment in the urgent case is very high. Many of these babies die within the first two or three days of life. The condition can be diagnosed by taking an x-ray of the infant, and proper surgical treatment can be instituted. At the present time the surgical mortality is less than 10 per cent where ten years ago it was well over 50 per cent.

Infants are also born with obstructions in either the stomach or intestinal tract, and this is manifested by early vomiting of the first few feedings. The bowel may end as a blind loop or there may be a so-called "tissue membrane" inside of the bowel which prevents the passage of liquid

Presented at the Fifth Annual Michigan Clinical Institute, Book-Cadillac Hotel, Detroit, March 14, 15 and 16, 1951.

throughout the bowel. The condition makes its appearance known to the physician within the first few days of life. Here again an x-ray of the abdomen will make the diagnosis probable because the trained physician can tell from the distribution of gas that there is an obstruction of the bowel, and these patients are likewise in need of urgent surgical care. Up until about 1940 there were only about sixteen cases that had recovered from this type of obstruction. During the past three and one-half years we have had experience with eleven of these infants, seven of whom have been premature, and there have been eight recoveries. Two of the babies operated upon weighed less than 3 pounds at the time of surgery. This anomaly occurs only about once in 30,000 births.

Another anomaly that occurs about once in about 200 infants, more prevalent in males, is that of congenital pyloric stenosis. There is an obstruction at the outer end of the stomach which is due to an enlarged circular muscle at the lower end which gradually closes off the opening so that the baby vomits practically all or most of its feedings and loses weight rapidly. Usually these infants are perfectly all right for two or three weeks and then vomiting starts at the second or third week and becomes projectile. This condition can be diagnosed by the physician from the history and also the physical examination, in which one can palpate a small tumor in the upper part of the abdomen. In the atypical case, x-ray examination can be done with the use of barium, and this will show delayed emptying of the stomach and the amount of retention in the stomach. Twenty years ago the operative correction of this anomaly carried a mortality of about 10 per cent, but at the present time, with expert preoperative and postoperative care and improved anesthesia, the mortality in this procedure is now less than 1 per cent.

There is another group of infants that are born with jaundice occurring about the third or fourth day of life. This jaundice, or yellowness of the skin, is progressive and there is enlargement of the liver and spleen. These infants are born with no communication between the liver and the intestine so that there is an inability of the infant to digest fat. Likewise, this anomaly only occurs about once in 20,000 births, and unfortunately only one in about six infants are remedial by surgery. All these infants should be explored because if there is a remnant of a duct in the liver this can be joined to the intestine over a small rubber tube or a direct communication can be established by uniting the liver duct to the small intestine.

In performing surgery of the newborn and infant, the improved mortality and chances of recovery have been due to four things: First, improvement and a better understanding of preoperative and postoperative care. Second, improved anesthesia by doctors of medicine trained in this special type of anesthesia. Third, an adequate pediatric service is highly essential in the care of these infants because they are special problems and require special care. Fourth, with the development of the new antibiotics year by year, infection, which was such a problem in recovery in years past has been largely eliminated. In other words, today the newborn or infant who is born with some anomaly has a good chance of having a corrective surgical procedure done so that he can be restored to a normal individual.

MSMS

WHAT IS FEDERAL AID?

Nebraska Agriculture, official publication of the Nebraska Farm Bureau Federation, hit the nail on the head when it defined federal aid in a recent editorial.

"What is federal aid?" the editorial asked.

"Federal aid is a temporary expedient that was offered to state and local governments by idealistic bureaucrats at a time when state and local governments lacked the courage to face and meet squarely their own problems of administration. It is a delusion that has gained permanency because state and local governments have not had the courage to make an effort to solve the problems created by the depression years of the thirties and the war economy that followed. Federal aid has always carried with it the idea that it costs no one anything; it is just money that the federal government gives states and local governments out of the goodness of its heart.

"Don't you believe it.

"You and I and all the other American taxpayers pay dearly for federal aid. Every dime of federal aid is paid for in higher income taxes, higher costs of automobiles, higher costs of foodstuffs and everything farmers and consumers buy, because taxes are a big item in the costs of production of this nation. . . .

* * *

"I have always respected the medical profession for the fine contribution American Medicine has made to the human welfare. As I watched your battle against regimentation during the past two years, I have added to that respect. The physicians of this country have shown that they are willing to fight for their conviction. I salute you today not only as doctors but as crusading citizens as well. We in the labor movement have our own cross of regimentation to bear. The fight you are making is part of the same war. It is a war against concentration of authority in a few hands in Washington. As a veteran of forty years in the labor movement, I know what it is to fight for human rights. I am happy to take my stand beside you."—William L. Hutcheson, General President, Brotherhood of Carpenters and Joiners, Vice-President, American Federation of Labor, Cleveland, Dec. 6, 1950.

Chronic Ulcerative Colitis in Veterans

By Harold J. Kullman, M.D., F.A.C.P. and
Phillip E. Schmitt, M.D.
Detroit, Michigan

THE TWO most frequent infections of the colon requiring hospitalization of the veteran at Veterans Administration Hospital, Dearborn, Michigan, in the post World War II period are chronic idiopathic ulcerative colitis and amebiasis. In the period from July, 1946, to January, 1951, fifty-two cases of chronic ulcerative colitis with typical x-ray changes in the colon or characteristic proctoscopic picture were treated at this hospital. During the same period, 102 cases of amebiasis, intestinal; amebic colitis, and extra-intestinal amebiasis were also treated. These cases are now under study, and will be reported at a later date. Our high incidence of amebic infestation is probably due to a high index of suspicion, the generous use of the sigmoidoscope, and the immediate microscopic examination of the warm material obtained during this procedure. The stool examination alone, accomplished in a hospital or clinical laboratory, is not adequate in establishing the diagnosis of amebiasis. The emetine provocative test also has not been too helpful in our experience. Culture for amebae is occasionally helpful.

A sigmoidoscopic examination does not require an operating room, which is still the practice in many large hospitals. All too few hospitals have an examining room equipped for sigmoidoscopic examination, provided with a tilt table, suction apparatus and a microscope. The attending physician is expected to accomplish the procedure in the patient's bed or in the operating room. The end result is that too few proctosigmoidoscopic examinations are done, many diagnoses are missed and our best in medical care is glossed over with a digital rectal examination and possibly a barium enema. The tragedy of doing a hemorrhoidectomy on a patient with a carcinoma of the sigmoid colon still happens altogether too frequently. It behooves all of us to interest hospital administrators in providing these facilities for the use of general practitioners, internist, and surgeon, preferably on a ward or in the out-patient department.

In this four and one-half year period, fifty-two cases of chronic idiopathic ulcerative colitis have been treated at the Veterans Administration Hospital in Dearborn. Twenty cases, after multiple forms of medical therapy, were considered medical failures, and surgical treatment was instituted. The yardstick was the severity of the disease, invalidism, amount of time lost from gainful employment, malnutrition, chronic anemia, and failure medically to produce a remission with the resultant "continuous phase." Duration of the disease is not synonymous with the severity, and we took into account the degree of disability and its incompatibility with the individual pursuing a gainful occupation. In certain cases, decision by the internist to recommend surgical treatment was delayed too long. Every effort was made to get the patient into the best possible condition prior to surgery by the generous use of blood transfusion, protein hydrolysate, glucose and saline, supplemental vitamins and antibiotic therapy. Medical treatment alone did not result in a single death in the thirty-two patients so treated. Two deaths occurred in the operated group; one occurred suddenly in a young veteran while in his convalescent period and at home; the other was in a sixty-year-old veteran who had his disease for twenty years; multiple carcinomata of the colon had already occurred. The latter death occurred three weeks after the final stage of colectomy and proctectomy, and the immediate cause of death was bilateral iliac artery thrombosis. The combined medical and surgical mortality in the fifty-two cases treated was 3.8 per cent. Of the total, twenty patients (38.4 per cent) were treated surgically.

Surgical treatment today is safer due to the added protection of sulfonamide, antibiotics and a more generous attitude in the use of whole blood. "Ileostomy life" has been improved with modern bags and patients adjust to it very well without fear of soiling or the presence of odors. Dearing

Dr. Kullman is Associate Professor of Clinical Medicine, Wayne University College of Medicine, Detroit, Michigan; Chief, Medical Service, Veterans Administration Hospital, Dearborn, Michigan.

Dr. Schmitt is Assistant Instructor of Clinical Medicine, Wayne University College of Medicine, Detroit, Michigan; Medical Resident, Veterans Administration Hospital, Dearborn, Michigan.

This paper was reviewed in the Veterans Administration and is published with the approval of the Chief Medical Director. The statements and conclusions published by the authors are the result of their own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

COMBINED MEDICAL-SURGICAL CHRONIC ULCERATIVE COLITIS
From July, 1946—January 1, 1951

No.	Patient	Age	No. Adm.	S	C	Duration Disease	Procto-scopic	X-Ray	Surg. Med.	Surgical Procedure	Complications and Associated Lesions
1	G.M.	38	3	M	W	3 yr.	Grd. 3	Lt. & distal ½ trans. colon	M	None	Amebiasis, intestinal
2	H.P.	30	1	M	W	9 mo.	Grd. 2	Neg.	M	None	Amebiasis, intestinal
3	R.S.	20	2	M	W	2 mo.	Grd. 4	Total	M&S	Total Colectomy	Thrombophlebitis, Amebiasis, intestinal
4	H.B.	30	1	M	W	4 mo.	Grd. 2	Neg.	M	None	Amebiasis, intestinal
5	L.H.	61	1	M	W	39 yr.	Grd. 3	Total	M	None	Diabetes
6	F.S.	55	1	M	W	3 yr.	Grd. 3	Total	M&S	Total Colectomy	Hepatitis
7	J.V.	30	1	M	W	1 yr.	Grd. 3	Lt. & trans. colon	M	None	None
8	M.S.	27	1	M	W	1 yr.	Grd. 2	Neg.	M	None	None
9	F.K.	24	3	M	W	7 yr.	Grd. 3	Lt. & trans. colon	M&S	Subtotal Colectomy	Arthritis
10	C.W.	21	1	M	W	2½ yr.	Grd. 1	Neg.	M	None	Allergic Rhinitis
11	W.B.	25	1	M	C	2 yr.	Grd. 2	Lt. & trans. colon	M	None	None
12	W.P.	27	1	M	W	5 yr.	Grd. 2	Lt. & trans. colon	M&S	Ileostomy	Thrombophlebitis, pulmonary emboli, duodenal ulcer
13	M.R.	29	1	F	W	12 mo.	Grd. 2	Total	M&S	Subtotal Colectomy	None
14	C.W.	24	3	M	W	2 yr.	Grd. 2	Lt. & trans. colon	M&S	Total Colectomy	Abdom. wall abscess
15	H.C.	24	1	M	W	2½ wk.	Grd. 4	Unsatisfactory	M&S	Ileostomy	Abdom. wall abscess
16	D.F.	26	1	M	W	1 yr.	Grd. 1	Total	M	None	None
17	H.B.	23	6	M	W	4 yr.	Grd. 4	Left colon	M&S	Total Colectomy	None
18	L.K.	49	3	M	W	20 yr.	Grd. 2	Total	M&S	Total Colectomy	Thrombophlebitis & thrombosis, iliac artery, bilateral, ca. colon, duodenal ulcer
19	F.W.	47	5	M	W	1 wk.	Grd. 1	Total	M	None	Arth. & Peripheral Neuritis
20	W.L.	30	3	M	W	1 yr.	Grd. 3	Total	M&S	Total Colectomy	Thrombophlebitis, pulmonary embolus, Hepatitis
21	L.T.	31	1	M	W	3 mo.	Grd. 1	Total	M&S	Ileostomy	Glomerulo-nephritis, latent, chr., Psoriasis, duodenal ulcer
22	H.Mc	25	1	M	W	1 yr.	Grd. 2	Total	M	None	None
23	E.W.	25	1	M	W	22 mo.	Grd. 3	Lt. Colon	M	None	None
24	R.J.	26	1	M	W	3 yr.	Grd. 2	Lt. Colon	M	None	None
25	H.B.	25	1	M	W	1 yr.	Grd. 3	Neg.	M	None	None
26	C.K.	23	1	M	W	30 mo.	Grd. 2	Neg.	M	None	None
27	S.G.	30	2	M	W	3 yr.	Grd. 2	Rt. Colon	M	None	Pulmonary tb. arrested
28	A.Z.	30	1	M	W	4 yr.	Grd. 3	Lt. Colon	M	None	None
29	P.J.	21	2	M	W	5 mo.	Grd. 4	Lt. Colon	M	None	Dermatitis, parotid gland, calc, pneumonia
30	E.S.	26	2	M	W	3 yr.	Grd. 3	Lt. Colon	M	None	None
31	J.A.	25	1	M	W	11 dy.	Grd. 3	Neg.	M	None	None
32	C.B.	44	2	M	W	6 wk.	Grd. 3	Neg.	M&S	Total Colectomy	Thrombophlebitis, derm., arthritis, calculus bladder
33	G.K.	25	2	M	W	4 yr.	Grd. 4	Total	M	None	Arthritis
34	K.A.	34	3	M	W	2 yr.	Grd. 2	Total	M&S	Ileostomy	Duodenal Ulcer
35	W.B.	30	2	M	W	4 yr.	Grd. 3	Lt. & trans. colon	M&S	Ileostomy	Psoriasis
36	G.B.	22	2	M	W	6 mo.	Grd. 4	Lt. & trans. colon	M&S	Total Colectomy	None
37	J.S.	25	3	M	W	3 yr.	Grd. 4	Total	M&S	Ileostomy	None
38	M.F.	25	1	M	W	9 yr.	Grd. 2	Lt. & trans. Colon	M	None	Calculus bladder, Guillian-Barre
39	M.F.	26	1	M	W	2 yr.	Grd. 3	Lt. Colon	M	None	Dermatitis
40	C.G.	27	1	M	W	1 yr.	Grd. 1	Total	M	None	Arthritis
41	L.S.	26	1	M	W	2 mo.	Grd. 2	Total	M	None	Prostatitis, chr.
42	E.G.	39	1	M	W	6 yr.	Grd. 4	Total	M	None	Amebiasis, intestinal duodenal ulcer
43	L.S.	24	4	M	W	2 yr.	Grd. 2	Lt. & trans. Colon	M&S	Subtotal Colectomy	Intest. Fistula, arthritis, thrombophlebitis
44	M.C.	54	1	M	W	1 dy.	Grd. 4	Total	M&S	Subtotal Colectomy	Intest. Fistula, arthritis, myocard. infarct
45	R.K.	26	2	M	W	3 mo.	Grd. 3	Total	M&S	Subtotal Colectomy	None
46	G.T.	24	6	M	W	9 mo.	Grd. 3	Lt. & trans. Colon	M&S	Ileostomy	Hepatitis
47	C.J.	57	1	M	W	1 yr.	Grd. 3	Neg.	M	None	Hypertension, Obesity
48	C.T.	24	1	M	W	5 yr.	Grd. 1	Lt. Colon	M	None	Dermatitis
49	T.G.	33	1	M	W	1 yr.	Grd. 2	Total	M	None	None
50	D.K.	26	4	M	W	3 yr.	Grd. 3	Neg.	M	None	None
51	A.F.	37	3	M	W	6 yr.	Grd. 2	Lt. & trans. colon	M	None	None
52	J.R.	60	1	M	W	1½ yr.	Grd. 3	Lt. & trans. colon	M&S	Colostomy	Rectal stricture, amebiasis, intestinal

and Heilman,[4] and Dearing and Needham[5] recommend a preoperative three to three and one-half days' course of aureomycin or terramycin because of its effect on the bacteriologic flora of the intestinal tract. Our experience in finding six cases of associated amebiasis in the fifty-two cases of chronic ulcerative colitis, and the favorable reports of Gutch[6] and McVay, and Laird and Sprunt[8] regarding the effect of aureomycin in amebiasis should further emphasize the need of preoperative antibiotics.

The long list of antibiotics, drugs, extracts, vaccines, sera, mucosal extracts, and the supportive agents used in recent years leaves physicians and surgeons in a quandary. We are still looking for a miracle drug in spite of the latest additions of Cortisone and ACTH. Of the many recommended treatments by a large number of writers about this disease, excellent, good and moderately good results are claimed in about two-thirds of all cases whatever agent was used in treatment. Some of the newer antibiotics work well during one attack and are entirely ineffectual in a subsequent episode. The disease is characteristically one of exacerbations and remissions frequently brought on by infections elsewhere or psychic trauma.

The use of ACTH in chronic ulcerative colitis is not encouraging. While Rossmiller et al[9] found that ACTH was helpful in reducing temperature, it apparently had little effect on the diarrhea and the appearance of the rectal mucosa. Only one patient in our series had received ACTH prior to admission to this hospital without effect. Cortisone, as a useful adjunct in the management of this disease, may have a place, as the action is rapid and occasionally dramatic. The affect response of one patient along with complete remission of temperature, diarrhea and the appearance of the rectal mucosa in our series was dramatic. However, a second patient appeared to have aggravation of his disease following a ten-day course of this drug. A word of caution if using either of these two newer agents, and that is to administer an antibiotic during the course of Cortisone or ACTH to protect against acute perforation and peritonitis. Our experience in using either of these agents has been limited at the present time.

In this series of fifty-two cases of chronic ulcerative colitis, twenty came to surgery (38.4 per cent). Recent reports indicate an operative group of 26 per cent at the Lahey Clinic and 13 per cent of 106 patients at the Cleveland Clinic.[2] Seven patients, to date, have had ileostomy alone and one has had colostomy alone. The remaining group have had partial or complete colectomy in addition to ileostomy. No attempts have been made to take down the ileostomy and thereby reinstitute the fecal stream over the diseased segment or the entirely involved colon. Lahey[7] has proposed "taking down" the ileostomy if the disease is completely controlled for one year, barium enema is normal and the sigmoidoscopic examination negative. These criteria are hard to fulfill, as complete quiescence of the diseased segment is not as frequent as one would like. It is not unusual after ileostomy alone to find patients continuing to have rectal discharges of blood, pus and mucus. Nevertheless, Lahey succeeded in two-thirds of twenty-five patients and the remaining one-third required a repeat ileostomy.

FIFTY-TWO CASES OF CHRONIC ULCERATIVE COLITIS

Complications and Associated Lesions

1.	Thrombophlebitis	6
2.	Thrombosis, Arterial	2
3.	Embolism, pulmonary	2
4.	Dermatitis	4
5.	Arthritis	6
6.	Hepatitis	3
7.	Nephritis	1
8.	Peripheral Neuritis	1
9.	Pneumonia	1
10.	Fistula & stricture	3
11.	Carcinoma	1
12.	Amebiasis	6
13.	Duodenal Ulcer	5
14.	Tuberculosis, pulmonary, arrested	1
15.	Calculous, bladder	2
16.	Guillain-Barre Syndrome	1
17.	Diabetes	1

Surgical treatment has been considered necessary for complications, medical failure and invalidism or chronic debility which results in failure to pursue gainful livelihood, but not in acute fulminating disease. Medical failure has not been admitted often and early enough, and everybody has a yardstick of variable length. We believe that internists and general practitioners should consider surgical treatment in long standing chronic ulcerative colitis as pointed out by Cattell[3] who found malignant change had occurred in one-third of his operated group having the disease nine years or more.

Indications for Surgical Treatment

1. Medical failure, including intractable disease or so-called "continuous phase."
2. Long continued disease, because of increasing awareness of malignant degeneration in the colon.
3. Acute or subacute perforation.

DURATION OF CHRONIC ULCERATIVE COLITIS IN FIFTY-TWO PATIENTS

Age Group	Number Patients	Per Cent Patients	Months	Years
20-29	31	59.6%	26.7	2.23
30-39	13	25 %	29.8	2.48
40-49	3	5.7%	80.5	6.71
50-59	3	5.7%	16.01	1.33
60-69	2	3.9%	243.0	20.25

4. Stricture and danger of perforation proximal to this complication (anus, rectum or colon).
5. Internal or external fistulae including perianal suppurations.
6. Massive hemorrhage (rare).
7. Recto-vaginal fistula.
8. Chronic invalidism.

Questionable Indications

1. Pseudopolyposis.
2. Acute fulminating disease.
3. Associated systemic diseases (acute arthritis).
4. Segmental disease.

More favorable considerations for surgery are the improved mortality following the advent of sulfonamide and the newer antibiotics and their influence on the intestinal flora preoperatively and the improved "ileostomy life" with the improved bags worn by the patient.

The fifty-two cases of chronic ulcerative colitis in veterans treated at Dearborn, resulted in twenty cases being treated by combined medical and surgical, and thirty-two by medical treatment alone. Fifty-one were males and one was female. Fifty-one were white and one was colored. Forty-four (84.6 per cent) were between the ages of twenty- and thirty-nine at the time of the first admission, and therefore a predominant number were World War II veterans. Thirty-one were in the group aged twenty to twenty-nine and thirteen in the thirty to thirty-nine year group.

The sigmoidoscopic examination was the most helpful aid in diagnosis. The classification of Bockus[1] was used to grade the mucosa. Changes in the rectal and sigmoid mucous membrane were noted in all the cases. Barium enema studies were reported as negative by the radiologist in ten cases and unsatisfactory in one. Nineteen of the forty-one cases demonstrating x-ray changes compatible with this disease were cases of total involvement of the colon, eight cases showed left colon alone, thirteen demonstrated left colon and transverse colon involvement, and one case demonstrated right colon disease alone.

The duration of the disease on first admission and the number of admissions for treatment of this disease are of interest and also have entered into the decision to recommend surgical treatment. The fifty-two patients had a total of ninety-seven admissions in a four and one-half year period. Several in the group having surgery were on prolonged medical treatment prior to surgery which was accomplished as one admission.

Summary

1. A review of fifty-two cases of chronic ulcerative colitis treated at Veterans Administration Hospital, Dearborn, Michigan, between July 1, 1946 and December 31, 1950 is presented.

2. During the same period one hundred and two cases of amebiasis, intestinal, and its complications were treated and will be reported elsewhere. In the fifty-two cases of chronic ulcerative colitis, amebiasis intestinal was an associated disease and no indication exists as to its etiological relationship. Surgeons and medical men should be aware of this incidence in veterans and search for this disease and treat it adequately, particularly when treatment surgically is being considered.

3. Mortality rate was 3.8 per cent for the entire group of fifty-two patients. Of the fifty-two cases 38.4 per cent were treated surgically, which is an increase over and above the percentages reported by certain clinics or groups.

4. Indications for surgical treatment are reviewed and preoperative medical preparation of the colon emphasized on the basis of associated amebiasis or a history of having had treatment for same.

5. ACTH and Cortisone therapy cannot be recommended on the basis of our experience and on the reports in the literature. A word of caution is given regards the use of an antibiotic in conjunction with ACTH or Cortisone to protect against acute perforation.

6. The profession should interest hospital authorities to provide more adequate facilities for conducting proctosigmoidoscopic examinations on the medical and surgical wards or in the out-patient departments.

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Pleural Fluid

By G. Thomas McKean, M.D.

Detroit, Michigan

TO ANYONE who is particularly interested in disease of the lungs, the frequency with which fluid in the pleural space is encountered becomes impressive. The fact that study of such fluid may or may not point toward a conclusive diagnosis becomes disconcerting.

It is the purpose of this discussion to present as much accurate information regarding the diagnostic implications of investigation centered about pleural fluid as may appear to be of value to the physician. No attempt will be made to cover all conceivable aspects of the subject.

Clinical Recognition of Pleural Fluid

Concerning the recognition of the presence of pleural fluid, no extended remarks are necessary. Physical examination often gives indisputable evidence of the commonly accepted signs of absent resonance, diminished breath sounds, absent tactile fremitus, mediastinal, tracheal and cardiac shift, et cetera. Not so widely appreciated are the following:

1. Auscultation over areas of fluid accumulation may give the sounds one is accustomed to associate with consolidation. Tactile fremitus over such areas will still show its usual absence, whereas true consolidation will give increased tactile fremitus.

2. The physical signs of fluid and of an elevated diaphragm are almost indistinguishable.

3. The presence of emphysema of the lungs, with its accompanying thoracic changes, may make very difficult the determination on physical examination of the presence of moderate amounts of fluid.

4. Appreciable amounts of fluid may be ascertainable on physical examination but invisible in the ordinary postero-anterior x-ray view of the chest.

5. Rarely both physical signs and x-ray examination may fail to reveal the presence of fluid which happens to conform in shape to the ordinary dome of the diaphragm.

6. Pleural accumulations of fluid of inflammatory origin which persist for a few weeks result in the presence of fibrothorax in which the displacement of the heart, mediastinum and trachea *toward* the involved side occurs. In such an instance atelectasis is often first considered but there is no need for such an alteration of the pulmonary parenchyma to be present.

The masking of pleural fluid by the presence of emphysema illustrates well the need for x-ray examination in all patients suspected of having pulmonary disease if one is to be careful in his study. Not always is the roentgenographic differentiation of consolidation from fluid easy; it is also true that interlobar accumulations of fluid may resemble parenchymal infiltration if viewed in only a postero-anterior projection. Consequently, our roentgenologists are increasingly asking for lateral studies of the thorax.

Common Sources of Pleural Fluid

It is obvious that the history and other parts of physical examination may make the cause of an accumulation of pleural fluid evident. In carcinomatosis the primary disease is often evident before fluid in the chest appears, such fluid acting as the final event in a life of suffering. The transudates of cardiac disease, cirrhosis, and nephrosis are often incidental findings in the course of these conditions.

The occurrence of pulmonary infarction in the course of cardiac disease or as a postoperative phenomenon is commonly observed. In the presence of a larger infarct an appreciable collection of pleural fluid may occur and be a source of further embarrassment of the patient's respiration.

Accumulations of fluid in the chest as part of a bacterial pneumonia has been a frequent experience of clinicians in the past. In present-day management this complication is seen almost exclusively in the neglected or inadequately treated patient. Bronchiectasis is well known for the frequency with which bacterial pneumonias are complications; these bacterial pneumonias are equally likely to infect the pleural space, usually with the production of an empyema.

Many statements are in the literature regarding the occurrence of pleural effusion with primary atypical pneumonia. During service with the Army in Italy the author was impressed with the tendency to use this diagnosis as a wastebasket into which slightly unusual cases of pulmonary disease were tossed for diagnostic purposes, and when

Presented at the Fifth Annual Michigan Clinical Institute, Book-Cadillac Hotel, Detroit, March 14, 15 and 16, 1951.

some fluid appeared in the chest, the effusion was attached to the originally erroneous diagnosis. This tendency persists today; too many patients are told they have virus pneumonia and then are treated with penicillin with excellent recovery, an adequate indication that the condition was of bacterial origin in the first place.

Extensive study in the Army has indicated that pleural effusion is a very rare complication of primary atypical pneumonia, and another source for such an effusion must be sought in most cases. Should a debilitated patient with virus pneumonia be secondarily infected by bacteria, one would not be too surprised at the appearance of pleural fluid. The more common error is the lack of recognition of tuberculosis pleurisy with effusion as the true diagnosis in a patient who had no virus pneumonia.

Tuberculous Pleurisy

Tuberculous pleurisy should really be the condition which is first considered when chest fluid is discovered in a patient who has little evidence of other disease that might cause it. The clinical picture of this condition may vary so greatly that one cannot describe a typical story. Two extreme examples may be cited.

An intern in a general hospital asked to have a chest film taken prior to serving on a rotation through a tuberculosis service. To his great surprise, fluid was found in his left pleural space. Study in the hospital revealed a normal temperature, blood picture and sedimentation rate; in fact, good health except for this fluid. Study of the fluid, however, proved positive on culture for tubercle bacilli.

At the opposite end of the spectrum is the patient who rapidly becomes the subject of severe chest pain, temperature of 103°, chilliness, nausea and moderate prostation. He, too, proved to have a positive culture for tubercle bacilli on study of his chest fluid.

Between these extremes all variations are seen. A common history in the Army was that of frequent visits to the dispensary for vague chest pain and negative examinations by the physician (even negative x-ray study), only to have a tuberculous effusion appear after such occasional visits over a few weeks or months.

Mention may well be made of the pathogenesis of tuberculous effusion now generally recognized. An individual contacts the tubercle bacillus and develops microscopic or larger areas of pulmonary involvement. Accompanying this there is involvement of the lymph nodes draining the infected tissue, usually the nodes at the lung root draining an infected area in the lung. In a matter of a few weeks the tuberculin test turns positive, should this happen to be done. The infection often smoulders for a time without giving its host any symptoms. A slight spread to an adjoining pleural surface or a short ride through some lymphatics to the pleura then leads to invasion of that space, and the patient is fortunate to have his tuberculosis brought to his attention in a relatively early phase.

Less frequently the original focus advances to a significant degree before the pleural invasion; this disease is more serious because of the more serious pulmonary parenchymal involvement.

Finally, tuberculous pleurisy may occur in still more advanced stages of pulmonary tuberculosis and a caseating focus invade the pleura, giving rise to purulent fluid in the pleural space. This situation is more commonly known as tuberculous empyema; if accompanied by a fistulous opening between the lung and pleural space, a pneumothorax also occurs.

The use of artificial pneumothorax in the treatment of pulmonary tuberculosis is frequently accompanied by the presence of fluid in the pleural space. There is growing recognition that the appearance of fluid is a danger signal and should make the physician give serious consideration to abandoning this form of collapse therapy. Associated with benign spontaneous pneumothorax, a small amount of fluid may appear in the pleural space. Larger quantities should be suspected of being hemorrhagic.

Unusual Sources of Pleural Fluid

Certain unusual sources of pleural effusion have been emphasized in recent literature and should be given consideration in differential diagnosis. Effusions in tularemia may be the major manifestation of this infection and are serious conditions responding well, however, to specific treatment.

The so-called "sympathetic" effusions occurring above a subdiaphragmatic abscess of amebic or other subdiaphragmatic origin may cause a confusing picture. Their recognition requires careful diagnostic study.

Actinomycotic invasion of the pleura is of sufficient frequency to require mention. This may be well considered when draining sinuses are present in the chest wall and when there is evidence of

rib destruction in the vicinity of a localized empyema.

Even more unusual sources of pleural effusion include coccidioidomycosis, the Meigs' syndrome of hydrothorax accompanying an ovarian fibroma, the collagen diseases, rheumatic fever, and allergic reactions.

The Removal of Pleural Fluid

The indications for tapping a chest formulated by Bowditch in 1852 differ little from our present-day indications: "(a) when the chest is full in either acute or chronic cases; (b) when alarming dyspnea is present even if the quantity of fluid is small; (c) in all cases where absorption is slow."

Today there are still three main reasons why fluid in the pleural space should be removed: (1) The implications provided by study of the fluid may be highly important in arriving at an accurate etiologic diagnosis. (2) Such fluid may be harming the patient in either of two ways: (a) a sufficiently large accumulation may so encroach on pulmonary function as to impair the fundamental respiratory activity of the lungs; removal of this will provide obvious mechanical improvement; (b) the presence of active infection in the pleural space certainly may give rise to products which cause deleterious systemic effects; removal of the fluid representing the local result of the infection may enhance natural resistance in reducing the amount of infection and the tendency toward remote ill effects. (3) Finally, the presence of fluid in the pleural space appears to promote fibrous thickening of the pleura so that an unyielding casing prevents the lung from expanding; the diaphragm may be fixed in a mechanically disadvantageous position with reduction or loss of its function and even the chest wall may be thickened and relatively fixed so that its function is limited or lost.

Details of aspiration of the pleural space will not be discussed. It may be well, however, to point out that one can only carry out study of the fluid by having proper receptacles available in which to collect the fluid. These should include: (1) test tubes containing anticoagulant so as to provide for cell counts and differential study of the white blood cells present, (2) a good-sized sterile receptacle so that adequate amounts of fluid may be supplied to the bacteriologist for accurate study on his part, and (3) a suitable tube for the collection of fluid to be studied by the pathologist for the demonstration of malignant cells in the manner which he is accustomed to use.

It may well be emphasized that the use of amounts of fluid up to 300 cc. allows a vastly higher percentage of positive findings of tubercle bacilli than will be true in the use of small tubes of fluid for bacteriological study. Culture of this larger amount of material is increasingly supplanting the use of guinea pig inoculation in attempts to isolate the tubercle bacillus.

Diagnostic Aspects of Fluid Study

The first observation of diagnostic importance made on the fluid will be its gross appearance. Thin, yellow fluid suggests a transudate; cloudy, slightly viscid fluid points toward a tuberculous or streptococcal etiology; frankly purulent fluid brings to mind the probability of underlying pneumonic or suppurative disease of the lung, though the possibility of mixed tuberculous and pyogenic infection must not be forgotten, and, finally, bloody fluid brings up consideration of malignancy or an underlying pulmonary infarction, though here again tuberculosis may be the cause.

A simple urinometer may be adequate to distinguish between a transudate and an exudate. Two pitfalls must be remembered. A transudate of some standing will become somewhat concentrated and give a misleading specific gravity of 1.016 or more, which will point toward an exudative source. Fluid complicating pulmonary infarction would often be considered exudative in character; yet it so often accompanies and is diluted by transudative fluid as to have a specific gravity under 1.016.

The next report which should be available from the laboratory is that of the number and types of blood cells present. For practical purposes such study has more value than most of medical literature appears to indicate.

When a pyogenic organism has caused the fluid, 80 per cent or more of the white blood cells will be polymorphonuclear leukocytes and the total count will be high. Contrariwise, when tuberculosis has caused the effusion, 80 per cent or more of the white blood cells will be lymphocytes and only with tuberculous empyema will high total counts be obtained. Between these extremes will come fluids of malignant origin, fluids complicating pulmonary infarction, and the so-called sympathetic effusions above subphrenic abscess of amebic or other origin. Occasionally early tuberculous fluids will contain a predominance of polymorpho-

nuclear leukocytes, and malignant fluids may contain nearly all lymphocytes.

Transudates contain relatively small numbers of cells and these tend to be lymphocytes or large mononuclear cells.

Study of the chemistry of the effusions has not been of great value. Elevated protein content (more than 3 grams per cent) accompanies exudate and will serve as a check on the specific gravity finding.

While there is no unanimity of opinion regarding the value of study of pleural fluid for malignant cells, most pathologists are willing to carry out the study of this type and may arrive at conclusive findings of malignancy.

Treatment

Where studies have pointed toward the source of the pleural fluid, management must be undertaken. Complete agreement has not been reached regarding the optimal methods. No one doubts that fluid encroaching on lung function had best be removed. There is agreement that fluid resulting from pneumonia or suppurative lung disease must be removed. In general, it is accepted that small amounts of fluid (e.g., not extending above the dome of the diaphragm) may be left alone.

It has been contended in most recent studies that the major consideration is to prevent loss of the ventilatory function of the chest wall and diaphragm. For this reason, the majority advocate keeping fluid of any inflammatory source down to a minimum, either by aspiration or by surgical drainage.

The management of inflammatory effusions overlying a pneumonia or suppurative lung disease allows one to attempt control of the fluid by antibiotic therapy both parenterally and by instillation of the drug into the pleural space. Such medical treatment must give evidence of success within a few days or be supplanted by surgical drainage. Loculation of the fluid usually indicates the need for surgical intervention though only small amounts be present.

When fluid characteristic of a tuberculous effusion is found, aspirations are to be repeated in an effort to obtain a relatively dry pleural space. Should the patient continue to have a moderate elevation of temperature, even in the absence of demonstrable pulmonary infiltration, the use of combined streptomycin and paramino salicylic acid therapy is indicated.

Such patients must be kept at bed rest, preferably in a sanatorium, for at least six months after evidence of infection has subsided and not allowed to work for about one year. Even then, an appreciable group will develop other evidence of active tuberculosis. These patients must be kept under observation for many years.

The use of replacement of fluid by air in the management of tuberculous effusions should be confined to the tuberculosis sanatorium where experienced hands may follow these patients closely. There is increased danger of tuberculous empyema when this method of management is used.

When any form of fluid becomes loculated within the pleural space so that aspiration or closed drainage becomes difficult or ineffective, consideration may be given to the use of streptokinase and streptodornase. These rather new agents appear to be capable of breaking down such loculations so as to allow more complete drainage. Improved agents of this type may decrease the high incidence of reactions now being observed.

Modern methods of controlling the fluid accumulation of cardiac patients and those with cirrhosis have decreased greatly the need for aspiration in these instances. Aspiration, however, is still occasionally needed in the cardiac case.

Summary

In summary, three points may be repeated for the sake of emphasis:

1. The cell count and differentiation of types of white blood cells present may be helpful in deciding the etiology of pleural fluid.
2. A major aim of treatment is to prevent extensive fibrosis in the pleural space in order to maintain maximum pulmonary function.
3. Keep tuberculosis strongly in mind when faced with pleural fluid. Give the bacteriologist a large amount of fluid from which to obtain the tubercle bacillus.

MSMS

SIX STATES ALLOCATED MONEY FOR CIVIL DEFENSE MEDICAL PROGRAMS

Six "primary target area" states have been allocated $6,136,000 by Federal Civil Defense Administration for first-aid stations and medical stockpiles. Grants have to be matched by the states. CDA estimates that between $13 and $15 million in medical supplies is available now for these purposes. States and amounts of federal grants are: California, $877,000; Connecticut, $102,000; Delaware, $25,000; Maryland, $142,000; New York, $4,741,000; Washington, $249,000.

Anesthesia in Chest Surgery

By Warren K. Wilner, Jr., M.D.

Ann Arbor, Michigan

MANY AGENTS are currently in use for thoracic procedures, all of them having their definite advantages in the hands of operators who are skilled in their administration. Local, high epidural block, cyclopropane, pentothal-curare and nitrous oxide with or without intravenous procaine, and ether are all being used today. We use the latter agent, ether, because it provides a high oxygenation for the patient and a large degree of safety. Ether anesthesia is used either with nitrous oxide induction to ether-oxygen, or with a pentothal induction to ether-oxygen. The patients are maintained in the middle to lower planes of surgical anesthesia to depress the many reflexes such as occur when the periosteum is stripped, the pleura is explored, the hilum of the lung is explored, or when the pericardium is manipulated. In the event that the patient does not tolerate the depth of anesthesia as stated, the anesthesia is augmented by local injection of the intercostal nerves, vagus and hilar regions.

Even though we have long been aware of the problem of ventilation of the patient undergoing intrathoracic surgery, our attention has been focussed on this even more sharply lately with the development of blood oxygen determination by oximetry, and through the analysis of blood pH and carbon dioxide. Oximetry has demonstrated that our eye is not extremely accurate in detecting early cyanosis.[2,4] Blood pH and carbon dioxide analysis has demonstrated that with increasing duration of anesthesia plus surgery in patients with an open thorax, an alteration of blood pH due to retention of carbon dioxide is directly proportional to the time of the operation.[1,3,5] Hence, with these problems before us, we must utilize every means at our disposal to maintain adequate ventilation. These are many: position of the patient, airway, assisted breathing and control of secretions. Positioning of the patient is frequently taken for granted. Occasionally, a brace or support will be found to be interfering with the abdominal diaphragmatic excursions. Also, straps may be inadvertently placed so as to restrict respiratory movement when their real use is for anchoring the patient to the operating table. An artificial pneumoperitoneum or dilated stomach offers the same interference to diaphragmatic excursions as an ill-placed brace or support.

The use of an endotracheal tube to maintain a clear unobstructed airway is of paramount importance. Intermittent suctioning through the endotracheal tube by means of a catheter can effectively remove most secretions accumulating in the tracheal and bronchial trees. The recent adaptation of the face-down position to increase drainage in patients having marked secretions is another aid that we can put to advantage. Repeated use of atropine every two hours throughout the operative procedure keeps secretions at a minimum.

Even though all the above factors have been taken into consideration, we will occasionally see the patient that is undergoing normal respiratory movement, yet affecting but a very small excursion of the rebreathing bag. The patient appears as though having an obstructed airway or a laryngospasm. With an endotracheal tube in the trachea, the possibility of a laryngospasm is ruled out, and the patency of the tube can be easily ascertained by the passage of a large bore catheter through the lumen of the tube. Auscultation of the chest reveals an asthmatic type of breathing or bronchospasm. This condition is most noticeable in patients having bronchiectasis or advanced emphysema. The treatment is with the use of intravenous isuprel, one cubic centimeter of a 1/100,000 concentration.[6] This will alleviate the bronchospasm within a period of from one to five minutes. The duration of action of the drug varies from twenty minutes to two hours and is repeated as the situation requires. The drug has a selective action upon relaxing bronchiolar constriction. It also has the side effects of a slight tachycardia with an associated slight rise in blood pressure. These side effects are seen in about one patient in ten.

The mediastinal excursion frequently seen during intrathoracic surgery is distressing both to the anesthetist and to the surgeon. This can be partially alleviated with the aid of assisted respiration. That is, the anesthesia bag is gently squeezed at the onset of inspiration, and the

From the Department of Anesthesiology, University of Michigan.

Presented at the Fifth Annual Postgraduate Clinical Institute of the Michigan State Medical Society, Detroit, March 15, 1951.

pressure released with the expiratory phase. This accomplishes two purposes; not only is the operative field a more quiet one, but the patient's ventilation exchange is augmented. Gibbon and co-workers have shown that the decrease in blood pH and increase in blood carbon dioxide is not nearly as marked when assisted respirations are used.

Active diaphragmatic excursion can often disturb the operative field and is usually a consequence of light anesthesia. Injection of the phrenic nerve on the operative side may alleviate this condition, or it can be controlled by deepening the anesthesia or through the use of intravenous curare or curare-like compounds. If curare is used, ventilation can be maintained by intermittent compression of the rebreathing bag of the gas machine, thus controlling respirations. A rapid respiratory rate can be as disturbing as active diaphragmatic excursions or a swinging mediastinum. This is sometimes seen in prolonged operative procedures and can be controlled through the use of intravenous morphine or demerol to depress the respiratory center.

Resting of the patient every twenty to thirty minutes for a period of two or three minutes greatly improves the patient's general condition. During this interval, the collapsed lung is inflated, the patient is well oxygenated and secretions, if present, are removed.

Not only is ventilation of the patient a problem in intrathoracic surgery, but the maintenance of a normal circulatory system is also necessary. Maintenance of circulating blood volume is usually the most frequently encountered disturbance in circulation. In the patient with adequate replacement of a normal circulating blood volume, hypotensive states are still occasionally seen. Vasopressor agents have a distinct role in these patients with a labile blood pressure giving hypotension without reduction in circulating blood volume. We use either intravenous neosynephrine, 10 mgm. per liter of a 5 per cent dextrose solution or Levophed (arterenol) in doses of 1 to 4 c.c. per liter of a 5 per cent dextrose solution.

Another type of hypotensive state is seen in the patient with an associated bradycardia most likely due to an excess of vagal tone. We have had a patient with such a high degree of vagal tone that an extreme bradycardia of forty with an associated imperceptible blood pressure occurring twice during the operative procedure necessitated postponement of the operation. Re-operation on this patient, using repeated large doses of atropine 0.8 to 1.0 mgm. to block the high vagal tone, helped to make the second operative procedure uneventful.

Cardiac stimulants, such as the digitalis group, are utilized in the decompensated patient before surgery and in the patient showing signs of early cardiac failure on the operating table. These patients in early cardiac failure show signs of a lowering of blood pressure with a lowering of pulse pressure, and may or may not have associated moist rales on auscultation of the lung fields. They respond neither to fluid replacement nor vasopressor drugs. The intravenous use of cedilanid, 0.8 mgm. followed by an additional 0.4 mgm. in ten minutes, and if the pulse pressure is still not restored to normal limits within another ten minutes, an additional 0.4 mgm. is then given to completely digitalize the patient. This procedure has been quite useful in the management of early cardiac failure as seen on the operating table.

The cardiac depressants also have a role in the operative patient. Quinidine hydrochloride, 600 mgm. given intramuscularly pre-operatively will in some instances depress cardiac arrhythmias. Intravenous procaine during anesthesia will likewise depress some of these irregularities of rate and rhythm. The newer procaine amide (Pronestyl) in our hands appears to have about the same degree of effectiveness as intravenous procaine. The perfect agent in treating cardiac arrhythmias, I believe, is yet to be found.

The use of atropine has already been mentioned in counteracting increase of vagal tone. The treatment of tachycardia on the other hand, in order to reduce an excessive heart rate during cardiac surgery, can sometimes be effected through the use of prostigmine, one-half to one cubic centimeter of a 1/2,000 solution given intravenously with caution.

The management of the completion of anesthesia and surgery in these patients is perhaps as important as management throughout the operative procedure. Adequate removal of all secretions by a suction catheter passed through the endotracheal tube, and into the available bronchi and trachea, can do much to reduce post operative complications. In the event that these secretions are present, after endotracheal suction, direct aspiration by the use of bronchoscope is utilized.

(Continued on Page 1160)

Exophthalmos

By A. D. Ruedemann, M.D.

Detroit, Michigan

EXOPHTHALMOS, a common eye sign present in numerous general, as well as in many local conditions, is valuable diagnostically. It produces disturbing functional and organic changes and also a distressing cosmetic effect.

The total volume of the orbit is approximately 30 c.c., the eyeball occupying one-fifth of the orbital space. A little to the side of the midline and near the base of the bony cone anteriorly-posteriorly lies the eye. While it is not in the center of the orbit, it does lie in the center of the vertical plane.

The orbital contents, including the eye, fill the entire space in the socket, and any change in cubical contents is bound to alter the position of the globe. A diminution in space by compression from without, or an increase in contents by increasing the orbital tissue, results in protrusion.

In case of any increase in intra-orbital pressure the lack of valves in the outflowing veins allows venous congestion to take place easily and rapidly. The lack of space for expansion, by virtue of the bony lateral walls, the association of the surrounding sinuses with thin walls, the brain cavity, above and posteriorly, and the numerous other structural relationships make malposition of the eyeball a fairly common and important sign of disease in adjacent areas.

Methods of Measurement of Exophthalmos

No definitely arbitrary normal limits can be established because the variable factors exceed the constant factors, thus necessitating recording relative values.

I use Hertel's exophthalmometer, which is simple to operate, relatively inexpensive, as accurate as any other instrument, requires little time, and has a low cost for replacement of parts.

To measure the patient's eyes, have him fix his eyes on the forehead of the examiner. Using equal pressure on both sides, one can record the readings for any individual patient accurately. These measurements are of diagnostic significance.

Each ophthalmologist should establish relative normal values for the patients he examines, because the predominant race in any territory will aid in establishing the upper and lower limits of normal.

In ten series of 100 patients each, consisting of refraction cases and others, I have established the following normal values: average values, O. D. 18.9 mm., O. S. 18.7 mm. with a high normal of 20 mm. and a low of 14 mm. In some instances, the measurements have fallen below the scale of the instrument, and in some cases of exophthalmos, they have been beyond the upper limit of the scale, 35 mm.

A measurement of the width of the palpebral fissures is also useful. Here the variables are not so numerous nor so great as in the anterior-posterior position. In the same series of normals a ruler held across the middle of the cornea, with the patient's vision fixed on a distant object, yielded a measurement of 9 mm. O. U. Any exposure of the sclera above and below the cornea usually arouses suspicion that there is some protrusion of the eye or widening of the fissure. This measurement is important because many cases of so-called exophthalmos, especially "photographic" exophthalmos, are found to be merely a widening of the palpebral fissure. Hence, a photograph without specific measurements is valueless in the diagnosis of exophthalmos. Relative ptosis, such as is seen in some instances of thyroid disease and in some patients with exophthalmos, makes it advisable to record the fissure measurement.

Levator retraction, or exposure of the superior part of the eye, is an early diagnostic eye sign of hyperthyroidism. This is sometimes preceded by or accompanied by lacrimation.

In cases of glaucoma, the finger tension is more accurate than the visual estimation of the amount of proptosis.

Diagnosis of Exophthalmos

A patient presenting signs of exophthalmos requires a thorough examination. I have established the following routine procedure in making the diagnosis in these cases.

ROUTINE PROCEDURES IN DIAGNOSIS OF EXOPHTHALMOS

1. History—time of onset, progress, familial characteristics of eye position.
2. Vision—external examination.
3. Measurements: exophthalmometer, fissures, pupils.
4. Mobility of globe—diplopia, muscle measurements.
5. Ophthalmoscopic examination—refraction.

Presented at the Fifth Annual Postgraduate Clinical Institute of the Michigan State Medical Society, Detroit, March 15, 1951.

6. Intraocular tension.
7. Fields (if indicated).
8. Palpation to locate pain and tenderness.
9. Temperature, blood counts, including differential, urinalysis, Wassermann.
10. X-ray of orbit, sinuses, optic canals, and skull.
11. Physical examination in all cases of bilateral exophthalmos and in all but exceptional cases of unilateral exophthalmos—examination of nose and throat—determination of basal metabolic rate, etc.
12. Photographs of eyes with measurements.

Surgery of the orbit has been intentionally omitted in the hope no investigative surgery will be done until a tentative diagnosis has been arrived at and the mass located so that surgical intervention will be direct. There is always a tendency toward disturbing the function of the globe, and the least possible amount of surgical interference the better. Surgery is a last resort, not a first.

Classification of Exophthalmos

Bilateral Exophthalmos

A. Increase in Volume of Orbital Content.
  I. Blood and blood vessels.
    (a) Newborn—Rh factor.
    (b) Spontaneous.
      1. Hemophilia and blood dyscrasias.
      2. Leukemia.
      3. Arteriosclerosis.
    (c) Traumatic.
    (d) Asphyxia (Compression of chest).
    (e) Scurvy.
    (f) Hemangioma, tumor, etc. (rarely bilateral).
    (g) Leukemia (Chloroma).
      1. Lymphatic edema.
      2. Mikulicz' disease.
      3. Chronic lymphona.
      4. Lymphoblastoma, etc.
    (h) Xanthomatosis.
      1. Schuller-Christian disease, Diabetes Insipidus.
    (i) Bilateral tumor masses.
  II. Edema, et cetera.
    (a) Trichinosis (Very early).
    (b) Tenonitis.
      1. Serus.
      2. Purulent.
    (c) Cavernous sinus thrombosis and stasis.
    (d) Endocrine disorders.
      1. Hyperthyroidism.
      2. Hypothyroidism.
    (e) Malignant exophthalmos (Thyrotropic group).
    (f) Hypertension.
    (g) Allergic conditions.
    (h) Arteriovenous aneurysm — orbital and cerebral.
    (i) Cerebral angioma.

B. Decrease in Size of Orbit.
  I. In children.
    (a) Tower skull.
    (b) Hydrocephalus.
    (c) Congenital malformation.
  II. In adults.
    (a) Paget's disease.
    (b) Leontiasis Ossia.

C. Relaxation of Orbital Fascia and Muscle Paralysis.
  I. External Ophthalmoplegia (Total).

Unilateral Exophthalmos

A. Increase in Volume of Orbital Content.
  I. Inflammatory.
    (a) Panophthalmitis.
    (b) Orbital cellulitis.
    (c) Pyocele, pyemic abscess.
    (d) Cavernous sinus thrombosis; lateral sinus thrombosis.
    (e) Periostitis, osteitis.
    (f) Tenonitis.
      1. Traumatic.
      2. Infectious.
      3. Surgical.
    (g) Foreign bodies.
    (h) Granuloma - actinomycosis, mycelium, blastomycosis.
    (i) Hydatid or echinococcus cysts.
    (j) Pseudo tumors.
      1. Gumma.
      2. Tuberculoma.
    (k) Tumors.
      1. Carcinoma.
      2. Rarely—other types.
    (l) Spontaneous, leukemic.
      1. Sclerosis.
      2. Hypertension.
    (m) Asphyxia.
    (n) Scurvy.
  II. Non-inflammatory
    (a) Hemorrhages
    (b) Intermittent (vascular stasis)
    (c) Encephalocele
    (d) Meningocele
    (e) Dermoid cyst, teratoma
    (f) Thyroid disease
    (g) New growths
      1. Sarcomata
      2. Hemangioma
      3. Mucocele
      4. Brain tumor
      5. Osteomata
    (h) Congenital malformation
    (i) Air
    (j.) Allergic conditions
    (k) Pulsating exophthalmos (may also be inflammatory)
      1. Trauma (77 per cent)
      2. Spontaneous (23 per cent)
    (l.) Intracranial aneurism

B. Decrease in Size of Orbit
  I. Trauma
  II. Hyperostosis, exostosis, sclerosing osteitis
  III. Paget's disease
  IV. Invasion from intracranial growths
  V. Congenital malformation

MSMS

INDIANA APPEALS IN WELFARE FUND DISPUTE

As anticipated, attorneys for state of Indiana have filed notice of appeal with U. S. Court of Appeals in their fight to force the Federal Security Administrator to resume $20 million-a-year welfare payments to the state. Funds were cut off after FSA Administrator Oscar Ewing held that new Indiana law didn't provide adequate safeguards against public disclosure of names of welfare recipients as provided in federal law. State attorneys also reported plans to file for writ of certiorari with Supreme Court in effort to bring an early decision.

Why the Necessity for Iodized Table Salt?

By John L. Giles, C.E.

Saint Louis, Michigan

IODINE is a necessary element in the nutrition of man and of livestock. It is just as necessary as is protein, fat, calcium, iron or any other of the many essential elements or compounds of the diet or ration. In extensive areas of the northern part of the United States and parts of Canada the soils are very low in iodine. To the soil or geological formation we must resort for our supply of this element. Plants grown on such areas, or water from the wells drilled in such soils or geological formations, will be too low in iodine to supply the human and animal demands. For example, no iodine was found in any of the ground water supplies of the Northern Peninsula of Michigan nor the upper part of the Lower Peninsula. In the regions of the Great Lakes and West to the Pacific Coast the iodine content of soils, waters, and plants is low and it is in these regions that the deficiency of iodine is felt most.

Records of Draft Boards of World War II show that for every 1,000 soldiers furnished from a large area of the northern part of the United States, five to eleven men had goiters, and a goiter in this case was defined as a growth too large to button a military collar around. Men showing slight goiters were passed and no record taken.

Chatin advanced in 1850 the theory that simple goiter is correlated with a low iodine content of drinking water but his opinion was not accepted. Goiter is a dearrangement in the normal functioning of the thyroid gland accompanied by its enlargement. The gland consists of two lobes, lying on each side of the trachea at its upper end. In man it weighs about one ounce. It produces a secretion which contains hormone thyroxin, a compound containing about 65 per cent of iodine. The removal of the thyroid in early life results in all species in a stunting of physical, mental and sexual development. In adults, the hair and skin show premature aging, and mental and physical sluggishness may develop. In all cases there is a lowered metabolism.

Read before the Iodized Salt Committee, MSMS, Detroit, Michigan, May 23, 1951.

There are two types of goiter. Simple goiter is caused primarily by lack of iodine. It develops as a result of a failure of the thyroid tissues to supply enough secretion, due either to a reduced supply of iodine for its manufacture or to an increased demand for this secretion by the body. It is an enlargement involving the formation of more tissues in an effort to supply more secretion. The demand for thyroxin advances with the activities of the body functions it controls. In the human these critical periods are pregnancy and puberty. In farm animals, however, goiter usually shows itself in the young at birth as a result of a deficiency of iodine in the ration of the mother during gestation. The young thus affected are born weak or dead. The danger is thus increased in the case of multiple births. In calves, lambs, and kids, the enlargement of the gland is very evident in the newborn. In pigs for instance, the most outstanding symptom of deficiency is hairlessness. A limited amount of data indicates ills in foals may be lessened by feeding iodine to brood mares, but further evidence is required.

Birds as well as mammals have enlarged thyroids as a result of iodine deficiency.

In the United States, the goiter areas are primarily in the northwest and in the Great Lakes, region. It is estimated that before iodine feeding was practiced in Montana goiter caused an annual loss of one million pigs. Records for other areas show that serious losses in sheep and cattle industries occured which were largely prevented following the discovery of the lack of iodine as the causative factor. The goiter area in the United States involves the states of Illinois, Wisconsin, Ohio, Iowa, Indiana, Nebraska, Michigan, the two Dakotas, Utah, Nevada, Colorado and Montana; on the West Coast, Oregon, Washington and California. Surveys of high school girls in Michigan and Minnesota according to the *American Journal of Public Health,* Volume 19, No. 10, October, 1929, show as high as 70 per cent definite thyroid enlargements.

For lack of a minute bit of iodine, you may not be enjoying the full health that should be yours. This fact has long been known, but now the salt manufacturers, the American Public Health Association, the American Medical Association and several other groups have launched a new campaign to overcome iodine deficiency by the voluntary use of iodized salt.

Medicine has learned positively that even though

you may not be deficient enough in iodine to develop goiter, you still may suffer from hidden iodine hunger. Without the needed amount of this chemical element, you may feel fatigued and draggy. Your skin may be thick and dry. You may not be as alert mentally as you should.

And thousands of people get so little iodine that they have goiter and some of the other related diseases. The country still has a serious goiter problem.

The tragedy is that these iodine-deficiency ills are easily preventable. The use of iodized table salt—plain, ordinary salt to which a small amount of iodine salt has been added—will give almost everyone all the iodine he needs for good health.

The iodine is carried in the blood stream to the thyroid gland. This U-shaped gland in the neck—your Adam's apple—must have a definite amount for the production of the hormone thyroxine. And this hormone is all-important in stimulating the normal growth of bones, hair and skin, in the development of the brain, and in the attainment of sexual maturity.

Some people, particularly those who live along the seacoast and eat lots of seafood, may get all the iodine they need in the usual course of things. Seafood is rich in iodine. Even so, iodized salt can do no harm. The body uses what it needs and disposes of any excess. In other parts of the country where there is little iodine in the food or water, deficiency among the non-iodized-salt users runs high.

Formerly some areas around the Great Lakes and in the South were known as "goiter belts." In 1924 a survey disclosed that 38.6 per cent of the people in one area of Michigan had goiter. An intensive drive was started to promote the use of iodized salt. A resurvey four years later showed that the incidence of goiter had decreased to 9 per cent. It is believed the incidence is much lower today, although still too high.

Another startling proof of the importance of iodized salt came from Calumet, Michigan. During the depression two-thirds of the families in this copper mining town were on relief. To save money, relief officials bought non-iodized bag salt for their use. Later it was discovered that 60 per cent of the children in the relief families had developed goiter. Only 3 per cent of the children who had continued to use iodized salt had the disease.

These and similar experiences made a sharp impression on health officials. The use of iodized salt increased rapidly. But gradually other dramatic medical developments somewhat shaded the familiar iodine story. Further, the salt makers interpreted a federal law of 1938 as forbidding them to claim any medical virtues for iodized salt. Although more and more people began to use iodized salt—usage increased 70 per cent from 1942 to 1947—millions did not.

The latest findings about the importance of iodine to general good health, and the realization that the country still had far too much goiter, stirred up public health people again. A bill was introduced in Congress to require the iodizing of all table salt. The salt industry, however, opposed compulsion as impractical.

So, as a compromise, the salt manufacturers and medical groups decided upon the publicity campaign. Salt ads once more will urge you to use iodized salt to protect your health. Medical journals will jog doctors about its significance.

If you want to be hale and hearty, you will do well to fall in line. Iodized salt costs no more. Almost every store has it. Just look for the label on the box. There's no special flavor to iodized salt. It's indistinguishable in taste from the untreated variety.

It can't hurt you, and if you are not getting all the iodine you need—there's no way of telling until trouble develops—it may do you a vast amount of good. Take your food, not the warnings, with iodized grains of salt.

When the occurrence of goiter showed that attention to iodine nutrition was needed, the most practical method for its distribution was the use of some special carrier such as iodine in common salt, or iodized salt. Common salt is a most common carrier for iodine. Obviously, its general use in the home and for livestock would make it the most effective vehicle for a wide distribution and use of iodine. As manufactured today, common salt is practically free of iodine, but by incorporating about .5 pound of potassium iodide in one ton of salt, a product is secured which will prevent common goiter when used in amounts commonly in use in the home and feed lot.

The loss of iodine from salt on aging has been observed for some time. In many cases the salt discolors, becomes spotty in appearance, and smells badly. The discoloration is due to the liberated vapors of iodine, a volatile element. We know of

(Continued on Page 1157)

Application of Venereal Disease Control in the General Health Program of the Michigan State Medical Society

Historical Résumé

By Robert S. Breakey, M.D.

Lansing, Michigan

At the request of the Editor of THE JOURNAL, the Venereal Disease Control Committee is submitting an historical résumé of its activities since its establishment by the House of Delegates. The original committee was merely a subcommittee of the Public Health Committee. It was so organized several years prior to 1937. The first chairman and permanent and outstanding member was the present chairman, Loren W. Shaffer, M.D., Detroit. It originally constituted six members, though now it has been very greatly enlarged. Outstanding members of previous years have been Drs. Udo J. Wile, Ann Arbor, Cyril K. Valade (deceased), Arthur R. Woodburne, now of Denver, Colo., H. R. Roehm, Birmingham, Harther L. Keim, Detroit, and Roy Herbert Holmes, Muskegon, the latter two being members of the present committee, and Oscar D. Stryker, Mt. Clemens, to mention only a few, along with various previous State Commissioners of Health and Directors of the Division of Venereal Disease Control of the Michigan Department of Health. In 1939, the committee was established as a permanent standing committee by the House of Delegates.

The following report is necessarily brief and in outline form since the volume of material prohibits elaboration.

1. The committee, after thirteen months of study, wrote and succeeded in guiding through the Legislature of the State of Michigan the premarital law requiring evidence of freedom from all venereal disease. This law specified that such certificates are not valid for longer than thirty days. However, further amendment merits consideration since after the license has been issued there is, under the statute, no limit as to its validity. This law was passed as Act 207 of 1937. Following its enactment, it was discovered that unfortunately there was no clause or means of appealing from a "blood test." Therefore, again under the guidance and recommendation of this committee, the law was amended to permit certain exceptions and grant a review of specific circumstances or cases by a committee appointed by the Michigan Commissioner of Health. It is noteworthy that since this amendment each Commissioner of Health has requested from the Venereal Disease Control Committee a wide list of capable and responsible physicians for appointment to such boards of review for special certification.

2. The Committee, after prolonged study and careful evaluation, endeavored to determine and recommend minimum standards of treatment to render infected individuals noninfectious and create thereby a criterion for possible special certifications by infected individuals after such minimum standards of treatment. These recommendations were approved by The Council of the MSMS, the House of Delegates, and the Michigan Department of Health.

3. Through the activities of some members of the Committee, and approved by the Committee as a whole, the statute prohibiting sex or biologic education in high schools was repealed in 1937. The necessity of this repeal arose in the form of a public demand in certain areas of the state which requested an opinion from the Michigan Attorney General as to the legality of such instruction. Upon presentation of the value of such education the Legislature unanimously repealed the law and specifically stated that such instruction could be given only by informed and competent individuals.

4. In 1939 the Committee wrote and guided through the various legislative committees the prenatal law requiring serologic diagnosis on all pregnant women at the time of the first examination by the physician. This was to combat the consistent frequency of congenital syphilis. Further, in 1951 the Committee was instrumental (in conjunction with the Michigan Social Welfare Commission under the chairmanship of L. G. Christian, M.D., Lansing) in repealing the Act giving the licensing of all maternity hospitals to the Welfare Commission, and transferring such licensing to the Michigan Department of Health. The Michigan Social Welfare Commission had endeavored to

accomplish this transfer for the preceding six years, and through this Committee, with the endorsement of The Council, this was done in the last session of the Legislature.

5. With a subsidy permitting the furnishing of free medications and drugs in the treatment of gonorrhea and syphilis and other venereal disease, the Michigan Department of Health has constantly sought the advice and always followed the recommendations of this Committee as to what drugs and standardizations should be employed in treatment and furnished free to physicians. At no time has the Michigan Department of Health furnished medications without the approval of this Committee which has acted not only in the interest of public health but also that of the individual patient and physician, in spite of considerable pressure upon occasion.

6. Through one component County Medical Society, Ingham, in conjunction with the United States Public Health Service, the Michigan Department of Health, and under the general guidance of the MSMS Venereal Disease Control Committee, the first detailed comprehensive survey of the prevalence, incidence, and diagnosis of syphilis and gonorrhea was carried out. This was chiefly subsidized by the Ingham County Medical Society with widely publicized results including an article by Paul DeKruif for lay consumption.

7. With the wholehearted co-operation of the Michigan Liquor Control Commission and the Junior Chamber of Commerce of the State of Michigan, metal signs warning against the dangers and possibility of infection, and of self-treatment, were placed in all lavatories of bars and taverns, as well as public rest rooms throughout the state. These signs were manufactured at the State Prison of Southern Michigan through the co-operation of the authorities. Failure to place these signs on display was made cause for revocation of license in the case of any class licensee by the Liquor Control Commission.

8. With the aid and advice of the Michigan Department of Health, and notably the Chief Pathologist, H. E. Cope, M.D., the Committee has endeavored to obtain and recommended the standardization of diagnostic tests for all types of venereal disease, and has carefully evaluated and recommended for standard use the quantitative titer as to blood serologic methods, the various studies and evaluation of spinal fluid, and the immobilization tests. This latter being in a stage of development and study, it is not believed practical at present that this service be rendered by the Michigan Department of Health.

9. Over a period of several years, the Committee has endeavored to accomplish, with the aid of the Michigan Department of Health, a uniform standard of reporting venereal disease according to law and regulation. The Committee has believed that all physicians should assume equal responsibility in the detection of communicable disease, and has upon occasion met with the Michigan Pathological Society endeavoring to accomplish such uniform obligation. A special meeting was called by the Commissioner of Health concerning this matter and divergent legal opinions were obtained—one by the Michigan Attorney General's office sustaining the uniform reporting, and one by the legal counsel of the Michigan State Medical Society, Mr. J. Joseph Herbert, disagreeing.

10. Since its establishment, the Committee has aided in postgraduate education of physicians, special postgraduate days at the spring extramural both individually and collectively, and sponsored courses of the Michigan State Medical Society, and furnished speakers upon request upon any occasion. Through funds created by the Michigan State Medical Society and the University of Michigan Department of Postgraduate Medicine, a series of specific slides were made which are available to any speaker for use as desired. These were for both lay purposes and scientific presentation.

11. The Committee has served well as a liaison group between the Michigan Department of Health and the Michigan State Medical Society as well as with the individual physician with the result that a much greater uniform effort and sympathetic understanding has been established in this field over the years, and in many cases dissension or disagreement has been eliminated and closer co-operation between authorized departments of health and individual physicians attained.

This Committee wishes unanimously to commend the untiring efforts and unselfish sacrifices of the original and present Chairman whose understanding, both of public health problems, and very greatly those of the individual physician, has been a constant guide and sustenance.

Americanism and Moral Integrity

By Roland M. Klemme, M.D.
St. Louis, Missouri

THIS GREAT country of ours represents a revolution of the human individual against all forms of enslavement, whether spiritual, political, or economic, that seek to govern man without consulting his individual will. It is a universal ideal and not limited to Americans. Liberty and self-government, as an experiment, has been a continuous and progressive example to the rest of the world what free government is and can do. Its inception dates from the time of the framers of the Constitution by a group of men who knew more about political philosophy than any men of their time. Whatever political science had to teach, the founders of our American government learned it.

The foundation of this political philosophy as applied to our form of government was, and is, the universal concept that the human individual must live and be entitled to live by the universal laws of nature and not by the laws and directives of men. These inalienable rights reflect the universal laws of nature and are anything but political.

The human individual is, quite strictly, almost meaningless in isolation; he only acquires significance in relation to some form of society. The value of the work he does in life depends on the society which benefits by it. Evolutionary analysis shows clearly that the human individual is the highest product of evolution to date.

The humanism underlying the U.S.A. is a world humanism, applicable to all the people of the world and treating all people as equals in terms of human dignity, mutual respect, and educational opportunities. Of mutual respect, the connotation here is far reaching, especially when pertaining to religion. Educational opportunity, as here concerned, can only be accomplished and perpetuated if we cherish and develop our public schools without any segregation on racial or religious grounds.

Delivered at the meeting of the Practical Nurses Association, Nyack, N. Y., June 2, 1951.
Dr. Klemme is Professor of Surgery, St. Louis University School of Medicine.

The underlying principle of equality is a principle of equality of opportunity. Humans should be equal before the law, should have equal opportunities for education, for making a living, for freedom of expression and movement and thought.

No two individuals are born equal biologically. Even identical twins are equal only in the sense that they possess the same genetic constitution, but there the equality ceases. Equality of opportunity is misleading and is influenced by many implications. Our notion must be clarified to read "equality of opportunity within the limits of aptitude." Inequality of difference is desirable. Inequality of level and standard may be considered undesirable, but the primary aim should be the raising of the mean level of desirable qualities and not the tearing down to a common lower level.

The three natural rights mentioned in the Declaration of Independence are life, liberty and the pursuit of happiness. All the civil rights necessary to the maintenance of freedom can logically be derived from these natural rights.

The struggle to define and implement these rights, and the struggle is still going on, is the true essence of American history. The great social issues in our time are attempts to re-define the right to life in an industrialized society. Political safeguards have been enacted to protect the individual. The right to the pursuit of happiness grants the individual the opportunity to develop himself according to his own cultural and spiritual lights. These fundamentals we inherited from our Founder Fathers, but the task of protecting and practicing this free spirit can never be finished. To date we have gained some fragment of freedom. We have gained some degree of political right and we have made extraordinary progress in the direction of the economic right. We have yet to gain much more than we have won. We have much to gain from freedom from error—right reason, freedom from hate—the fundamental cause of wars.

This freedom which we have accepted without question as our inalienable right is now in jeopardy. The American political philosophy necessarily assumes the highest degree of moral philosophy. Whether men can govern themselves, or whether they must be forced to be moral or even forced to be free has not been answered, but the government derives its just powers from the con-

sent of the governed. If we must have a strong central government let us maintain it as one of "laws" not "men."

Our political leaders in this passing generation have striven to upset the fundamental principles of our government. Hosts of new powers and responsibilities are being assessed or pushed into the Federal government. The very reasons the founders gave for fearing a strong central government seem all to have come true. Standing armies, universal military training, heavy taxes, monstrous debts, swarms of officials, bureaus and bureaucrats, and, what is most terrifying, a steady narrowing of the self-determining power of that intellectual agent, the free citizen.

This country is faced with the gravest danger in its history. The imminent danger with which we are confronted transcends all political differences. This country is rapidly drifting into inflation and national bankruptcy. America, upon whose altars we have placed the god of efficiency, is dying of dry rot because of gross and stupid inefficiency. The most powerful business corporation in the U. S. would go into bankruptcy within a year if it were so wretchedly mismanaged as is our Federal government today. The government cannot go out of business so now it simply goes on with deficit spending, and borrows money which must be paid through taxation. At the present rate of taxation confiscation seems the only outlook, resulting eventually in the cessation of all business—factories will be idle and people will starve. A very fertile field for Communism.

Lack of organization, the fight of the bureaucrats, and a stone wall of personal selfish opposition is increasing governmental expenses in astronomical figures only to protect the soft jobs of political parasites of both parties. Only recently former Governor M. E. Thompson, of Georgia, resigned as consultant with the office of price stabilization in disgust. After sitting in his office for more than twelve weeks as a consultant he had been consulted about nothing and had been assigned to do nothing at the rate of more than $50.00 a day. In resigning he stated that he "would not be a parasite on the American taxpayers." He also stated that official Washington is drifting on a sea of confusion, inefficiency, waste, and extravagance." He expressed the belief that thousands upon thousands of others are on the public payroll, but rendering no service. The Hoover Commission—one of the greatest tasks of its kind in reorganization of the Federal government is being destroyed by filthy politicians of both parties for their own selfish ends. Only a small portion of this program has been initiated effectively.

The people of America have crusaded for War Bonds, Red Cross, Community Chests, and other worthy causes. Twice in one generation they have gone through war to fight for human liberty. They have taken upon their shoulders the most staggering burden of debt history has ever recorded.

When will the leaders of our political parties, the National Association of Manufacturers, the A.F.L. and the C.I.O., civic minded groups, churches, noonday clubs—when will the individual citizen unite in war to campaign against the evil which is destroying us?

American capitalism leads the way in social-economic reform. The days of Robber Barons are past. At the bottom of the change is simple morality. The days of Daniel Drew, Cornelius Vanderbilt, Jay Gould, and old John D. Rockefeller—capitalism gone berserk—are gone. The transformation of American capitalism is a progressively accomplished fact.

The reorganization and protection of big business is evidence of the realization of responsibility to the people, as exemplified by such corporations as Sante Fe, General Electric, General Motors Corporation, etc. These companies plow back a large per cent of their profits, establish self-capitalization; and in the long run enhance the stockholders' equity, enable continuous employment, and no longer rely on the graciousness of our banks. Modern business, to make money, and to continue to make money, must conduct the affairs of an enterprise to maintain an equitable and working balance among the stockholders, employes, customers and the public at large. Modern management now exhibits a sense of responsibility to the employes, since a large satisfied group of employes is as much a capital asset as a modern plant. More goods at lower cost (and prices) is the basic principle of American industry.

Labor unions and farmers have entered the economic picture and have created a controversial imbalance. With approximately sixteen million members in labor unions, labor leaders now enjoy the kind of industrial power that has not existed since the time of Morgan.

Imagine, if you will, that a single company has

a monopoly on a widely used device and it decides to raise prices because it feels it is not getting enough money for its product. When the customers protest, the corporation decides to close down three days a week to create a scarcity. Imagine, the customer complains to the White House, which "settles" the dispute by forcing the corporation to buy at higher prices. This, big business has never been able to do even in its balmiest days of the big trust. Yet, John L. Lewis put his miners on a three-day week, and a railway union wage dispute was settled in the White House.

The price of labor is as vital as the price of anything else, but an unjustified rise in the cost of labor affects sixty odd million wage earners precisely as an unjustified rise in the price of commodities. The influence of political power represented by labor through party affiliation and indebtedness, on our social-economic structure cannot be measured accurately to date as yet.

The political power of the farmer, represented in Congress out of proportion to his number, championed by legislation and bureaucrats, has insulated him from the law of supply and demand. By restricting output, bureaucratic fixation of prices, storing up surplus at governmental expense —yours and mine—bureaucrats have done for agriculture what a watertight cartel would do for a group of manufacturers. They have not only saddled the public with high prices, but they have prevented the farmer from becoming as efficient as he ought to be and can be. The price umbrella over the farmer has enabled the most of them to do all right and the best of them to make fantastic profits and discourage efficiency.

The sense of responsibility that goes *with power* to increase the nation's productivity has to date not been evidenced by either labor or agriculture.

The recent investigation of the R.F.C. and crime by Senate Committees indicates the need for a general investigation of the moral level of our government. The evidence of nonchalant immorality in the highest places and the lowest places in our government is too ghastly to contemplate except that we are faced with the actual happenstance.

The lack of moral integrity of the men handling the R.F.C., the attitude of our Chief Executive to the Fulbright Committee and the Communist Investigation portends low-grade morality. Money is still the most beguiling seducer of principles.

The Crime Investigation which is revealing government rotten with bribery and organized gambling, the Tydings Campaign Investigation in Maryland, the sale of federal jobs in Mississippi, the Anti-Taft Campaign tactics, which reached an all-time high in viciousness, the favored few friends and cronies of the Chief Executive—one wonders if this could have happened had Washington not offered the cue in ethics.

How can we expect our youth to have respect for the law when their seniors, among them Government's own officials, show scant respect for it? How can our government hope to survive this ruinous psychology? How can we look for honest leadership in high places, at federal, state and local levels, if we permit the control of government to slip by default into the hands of gangsters, hoodlums and corruptionists?

The chief enemy of America today is not Communism, it is not Russia, nor is it Red China. It is not inflation, although that is bad enough. It is something much more deadly. It is the lack of moral integrity of our government officials, precipitated and encouraged by a deadlier *apathy* of the American public.

An outraged revolt by the people themselves, a revolt that will elect men to office who will be no part of the selfish group of parasites and who will employ courage and intelligence and native honesty, despite all political resistance and organized entrenchment to effect a complete extinction of our megalomaniacs and their ilk, is essential and mandatory. Only public opinion can save the United States from political corruption and from the bureaucrats who stifle us.

"Public sentiment is everything," once said Lincoln, "with public sentiment nothing can fail. Without it nothing can succeed." Our only hope is an aroused people who will awaken from their lethargy and assume the responsibilities *"their franchise to vote"* places upon them.

4952 Maryland Avenue

MSMS

Six years of austerity, controlled economy, socialization of profession and industry, and promises of a Utopian future have made a surprisingly dependent house cat of the once mighty British lion. An England rocked by an ounce of cheese is a far cry from the lusty old England of Good Queen Bess, or the sturdy 19th Century England of Queen Victoria. Surely only through the most rose-colored spectacles—half paid for by the Government—can the present-day Englishman recognize the Britannia that ruled the waves, the Empire on which the sun never set.—*California Feature Service,* April 30, 1951.

Editorial

SETTLED AT LAST

MANY OF OUR MEMBERS will remember the furor created in the minds of the public, the chagrin of the medical profession at unfair and adverse publicity, and the consternation of the victims of a practice which had developed over a period of many years. We are referring to the suit started in the Chicago Federal Court February 13, 1948, asking that 2,750 (thirty from Michigan) of the nation's ophthalmologists be named as defendants in a suit started in June, 1946, against several large optical houses and fifty-two ophthalmologists for accepting rebates on prescriptions for glasses.

Several states, Michigan included, have laws prohibiting the acceptance or giving of rebates. The Code of Ethics of the American Medical Association has such a provision. Fee splitting is also illegal, but the practice has grown. Rebates are a form of fee splitting. Editorially, THE JOURNAL of the Michigan State Medical Society has deplored this practice many times.

Chicago papers announced that the internal revenue officers were probing the income reports of the 2,750 physicians whose names appeared on the lists. This evidently was thoroughly done because the final decision in the United States Court of Appeals, handed down April 2, 1951, was in a review of a decision made by The Tax Court of the United States which sustained a decision of the Commissioner of Internal Revenue. The Commissioner had disallowed certain trade discounts made by one of the defendant optical companies.

THE JOURNAL of the Michigan State Medical Society on pages 418-419, April, 1948, number, in discussing this matter of rebates used these words:

> "We believe the eye doctor should do the complete job of examination and fitting, and in one overall charge, not only to save money for his patient, but to have the satisfaction and the pleasure of a satisfied patient. We believe the prescribing of glasses is a professional service, involving much more than the mechanical operation, and if done in that spirit will be recognized and appreciated by the patient."

Upon request, the defense attorneys were supplied with copies of that editorial, and stated they anticipated this thought would be involved in the final decision. The United States District Court of Northern Illinois on May 16, 1951, entered a FINAL JUDGMENT—This judgment is a "consent decree" in which the defendants enter a plea of guilty, and the judge fixes his final judgment, which cannot be appealed to any Court. This document is too long for publishing (five single-space pages). The fifth paragraph reads:

> "Each of the corporate defendants, defendant individual doctors, and defendant buyers hereby consents to the entry of this final judgment. The consent of each individual doctor is made both as an individual and as a representative of the defendant class doctors as hereinafter defined."

Paragraph I declares any commissions, rebates, or whatever they are called, to be in violation of the Sherman Act. Paragraph II defines (*a*) Corporate Defendants; (b) Defendant individual doctors; (c) Defendant class doctors; (d) Defendant buyers; (*e*) "Person"; (*f*) Ophthalmic goods; (*g*) Dispensing; (*h*) Dispenser; Under *h* is the exemption taken from our editorial:

> "The term shall not be deemed to apply to a refractionist who engages in dispensing in his own professional office (either himself or through a benefited employe) to his own patients only."

Paragraph III "perpetually enjoins" each defendant doctor forever from a long list of activities. He cannot receive any commission, discount, fee, profit, credit, gift, et cetera, growing out of prescribing glasses. He may not, ever, acquire a partnership in or enter into the optical business. He may dispense glasses to his own patients, either personally or by an optical unit which does not serve other prescribers.

INCONSISTENT

DURING the several years of court proceedings regarding rebates, the principles of ethics of the American Medical Association were invoked against the defendent doctors. One doctor in a southern city was especially unfortunate. We heard this story at the Atlantic City session of the American Medical Association in June, when this item of the Code of Ethics was under discussion. The doctor, a nationally known occulist, declined

to receive rebates from his optical company on ethical grounds. The company sent him checks, and he returned them. The company reported payments to him in their internal revenue reports and claimed deductions. The Internal Revenue investigators demanded that the doctor accept this money, and revise his own income tax figures, for someone must pay that income tax, and the company claimed exemption. The doctor finally agreed and ordered the refund to be paid to his church, after tax deduction. That fixed him. He was included in the 2,750 doctor defendants, and is now under perpetual injunction, with his books and records always open to government inspection. One department of government forced a man to do what he did not wish to do, and another punished him for doing what he was forced to do, an action which is now declared illegal.

At Atlantic City an attempt was made to reword the Principles of Ethics covering this particular point so that a doctor could dispense his own glasses, as the court has approved, but the Judicial Council objected. It suggested that the ophthalmologist might set up a fitting service, hiring help, buying for cash, but in the transaction must not make any money out of the spectacles dispensed. Such a business which the court advises must be conducted at a small profit or it will be a definite loss, cannot in the very nature of business break exactly even.

Is anyone inconsistent?

DIABETES DETECTION

THE WEEK of November 11 to 17, 1951, has been designated for the National Diabetes Detection Drive, the fourth sponsored by the American Diabetes Association. The program is a year-round detection plan approved by the American Medical Association and twenty-eight State Medical Societies. Over 500 county medical societies (as well as the state societies) have established committees on diabetes.

This is another broad health education and case-finding program developed exclusively by the medical profession. It has a two-fold objective: to further the detection of diabetes among the public, and to disseminate general information about the disease. There is a large number of undetected diabetics in our midst, but also an even larger number of potential victims.

In Michigan alone, in addition to the State Medical Society's committee, with W. M. LeFevre, M.D., of Muskegon, chairman, there are approximately twenty-five county medical societies with formal and, we hope, active committees which will be working during the detection week in November.

This subject is of so much importance that every member should and can easily make himself an active committee. Every patient who comes into his office, or whom he sees elsewhere could leave a sample of urine, and it is a matter of just a minute with our modern easy tests to determine the presence of glycosuria. If found, the further course is obvious.

Two pamphlets have been prepared for the 1951 campaign, which will be supplied gladly through the proper committees.

UNITED-RED FEATHER

COMMUNITY CO-OPERATION and united giving during the past thirty years have become in no uncertain terms definitely "The American Way." No nation has been more worthy of pride in its accomplishments in welfare and relief work, work for the sick, the unfortunate, underprivileged or handicapped, work for boys, girls, youth, than the American people. With such needs and the ability to organize everything, it is no wonder that many groups developed and made appeals for money.

At about the time of the First World War some farseeing individuals established Community Funds or Chests, which supervised and conducted the drives on a "give once for all" plan. Over the years, these groups became the Red Feather Plans. In recent years, many new groups have developed, with mainly a health interest—cancer, tuberculosis, crippled children, heart, poliomyelitis, diabetes, cerebral palsy, to name a few. Each of these worthy causes have increased the necessity for fund raising. (Tuberculosis and crippled children with their special stamp and poliomyelitis with its march-of-dimes have maintained their independent drives.)

In Michigan, the result has been the United Health and Welfare Fund (in Detroit it is called The United Foundation) which conducts its own campaign for necessary money. Throughout most

(Continued on Page 1157)

Leading In Learning . . . .

—A Simple Objective
—A Gigantic Challenge

- **The era in which clinical research and Medical-Health Education was financially supported on a marginal basis is history—**
- **The day when useful Medical-Health information could be obtained by a grant of a few hundred dollars is gone forever—**
- **The price for procurement of these necessary factors for healthy living has risen in almost direct proportion to the advances made in clinical research and the complexity of problems involved.**
- **Privately endorsed institutions and universities are no longer able to contribute the major portion of the fund for clinical research.**
- **The time has come when these funds must be derived from private sources such as foundations, private donors, industry or when necessary from public funds.**
- **The MICHIGAN FOUNDATION FOR MEDICAL AND HEALTH EDUCATION, INC., was organized out of recognition of these and other socio-economic factors which make up the pattern of today's Medical-Health problems. The Foundation is aggressively pursuing a program to meet these needs.**

Michigan Medicine has repeatedly conceived and produced the means necessary to meet every *challenge*. The written history of Michigan Medicine, down through the years, is rich in evidence to support this statement. *The Michigan Foundation for Medical and Health Education is no exception.*

The need for an organization, dedicated specifically to Medical and Health Education, was evident to many in the profession long ago.

It is not difficult to point to the exact date on which the Michigan Foundation for Medical and Health Education was officially incorporated. But the basic idea—the chain of thought and deliberations on the part of many leaders back through the years—is equally important if the full picture is to be considered.

History

Links of this chain are interwoven in the very history of Michigan Medicine itself. It is interesting to pick up those links and form them into the sturdy chain which now binds the Foundation together as a progressive Michigan Corporation dedicated to—*"Leading in Learning."*

Perhaps one of the first links could be found in the organization of the Michigan State Medical Society in 1866. By joining together, the Doctors of Medicine in Michigan were later able to introduce many constructive ideas for learning. Unity of voice and purpose gave these ideas emphasis.

Another early step occurred only seven years later, in 1873, when the Michigan State Medical Society recommended the establishment of the State Board of Health. MSMS was equally influential in encouraging the University of Michigan to admit medical graduates to undergraduate courses in 1893, and in the inauguration of an annual clinic at Detroit College of Medicine and Surgery (now Wayne University College of Medicine) in 1899. The following year the State Legislature was requested by MSMS to establish a Tuberculosis Sanatorium.

In 1907, when the American Medical Association adopted a plan for county medical societies to conduct uniform postgraduate programs, and supplied outlines for a four-year course of study, it was promptly accepted by two Michigan counties, Calhoun and Berrien.

As far back as 1921, the Medical Society was thinking seriously of specific Health Education. In that year, under the leadership of B. R. Corbus, M.D., Grand Rapids (MSMS President in 1939) a Health Education program was developed, pointed toward School Health and Adult Health Education.

Creation of Department of Postgraduate Medicine

We come now to 1927 when another very important link was added to our chain. In that year a study committee, made up of representatives of MSMS, University of Michigan, and the Detroit College of Medicine, recommended and the University of Michigan approved "the establishment, within the Medical School, of a Department of Postgraduate Medicine." The late James D.

Bruce, M.D., Ann Arbor, was named as head of the Department.

In 1928 both MSMS and the Wayne County Medical Society named postgraduate committees



B. R. Corbus, M.D.



H. H. Gardner

to work with the medical schools in setting up a Postgraduate Medical Education Program in Michigan.

This program has expanded and has flourished during the past twenty-three years. Teaching centers were established in various parts of the state and regular special day clinics held at these centers have been well attended and successful.

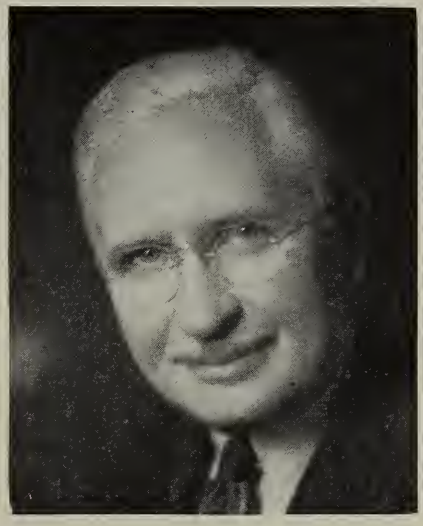
By 1941 it was evident to the MSMS House of Delegates that steps should be taken to assure financial security for continuation and further expansion of Postgraduate Medical Education programs in Michigan.

An important step was taken in 1942 when MSMS created the "MSMS Foundation for Postgraduate Medical Education" and placed $10,000 in trust as the initial contribution. Early in 1944, a Postgraduate *Foundation* Committee was appointed by MSMS to find ways and means to enlarge the scope of the fund for Medical Education. Named on this first study Committee were J. D. Bruce, M.D.,* Ann Arbor, E. I. Carr, M.D., Lansing, B. R. Corbus, M.D., Grand Rapids, F. B. Miner, M.D.,* Flint, J. M. Robb, M.D., Detroit, and R. H. Stevens, M.D.,* Detroit.

Creation of "Michigan Foundation for Medical and Health Education"

Serving as Acting Chairman, on December 14, 1944, Dr. Carr presented the following Committee report to The MSMS Council:

"The Committee feels its purpose is to seek funds for postgraduate medical education and that the scope should be increased to 'medical education' so that it would not remain exclusively postgraduate medical education. The Committee has inspected the Trust Agreement for the Michigan State Medical Society Foundation for Postgraduate Medical Education and feels that probably this document can be improved. The Committee also feels that the Foundation should be independent of the Michigan State Medical Society and that it should be administered by a committee of qualified individuals, including laymen as well as doctors of medicine."



E. I. Carr, M.D.
President, Michigan Foundation for Medical and Health Education.

By June, 1945, Articles of Incorporation and By-Laws for the Michigan Foundation for Medical and Health Education, Inc., were drawn up. They were formally filed with the Michigan Securities Commission on September 21, 1945, and the Foundation came into being with a Board of Trustees as its governing body.

E. I. Carr, M.D., who had given freely of his time and experience, along with others of the original committee, was elected first president, and in recognition of his continued guidance in the expansion of the Foundation has been annually re-elected president by the unanimous vote of the Board of Trustees made up of six physicians and three laymen.

Starting with an original bequest of $30,000.00 made by the late Dr. and Mrs. Andrew P. Biddle, the Foundation has grown steadily as members of the medical profession and others have endorsed its program with their gifts and allocations.

Expansion and Growth

Although young in years, The Michigan Foundation for Medical and Health Education has grown rapidly in stature and importance. A commendable program in education support,

*Deceased.

scientific research and investigatory action has entrenched it solidly in the field of medical and health education in Michigan. The expansive nature of its interests and activities is shown in the following outline of accomplishment:



H. G. Gault Wm. A. Hyland, M.D. J. M. Robb, M.D.

EDUCATIONAL SUPPORT

Extending sponsorship to:
- (A) Postgraduate program
- (B) Undergraduate training program
- (C) Michigan Practical Nurse Training Program
- (D) Student Loan Fund
- (E) Assistance in formation of Michigan Heart Association
- (F) Medical needs in rural areas
- (G) Annual Michigan Rural Health Conference (financial sponsorship)
- (H) *Michigan Health Council
  - (1) Health Information Centers at Community Level
  - (2) Community Health Council Organization and Activity
  - (3) Production of Directory of Health Organizations in Michigan
  - (4) Health Film Information Service
  - (5) Speaker's Bureau
  - (6) Comprehensive Annual Physical Examination Project
  - (7) Health Information Clearing House

* Sponsorship provided through Annual Michigan Rural Health Conference Grant.

SCIENTIFIC RESEARCH
- (A) Rheumatic Fever Education
- (B) Survey of Medical Care in Michigan
- (C) Heart Education
- (D) Cancer Control Education
- (E) Rural Health Hygiene Education

INVESTIGATORY ACTION
- (A) Doctor Procurement
- (B) Distribution of Medical Care in Michigan
- (C) Advisory service on:
  - (1) Preparatory years planning
  - (2) Location for Practice
  - (3) Premedical Planning Service
  - (4) Consultation service for:
    - (a) Undergraduates
    - (b) Recent Graduates
    - (c) Postgraduates

Annual Michigan Rural Health Conference

By providing financial sponsorship to the annual Michigan Rural Health Conference, through the Michigan Health Council, the Foundation has stimulated the growth and expansion of this annual meeting during the past two years.

Through extending the offer of co-sponsorship of the Conference to other worthy health organizations, the Foundation has been instrumental in broadening the scope of participation from fifty-four organizations in 1949 to sixty-eight in 1950. A total of eighty-seven health groups have already accepted co-sponsorship of the Fifth Annual Michigan Rural Health Conference, scheduled for January 10, 11, 1952, at Ann Arbor, where between 400 and 500 farm representatives are expected to attend and explore avenues of co-operation under the central theme "Education for Health."



H. H. Cummings, M.D. C. Stewart Baxter

Objectives

While many avenues of approach have been followed in the past, and many others will be explored in the future, the Foundation has held steadfast to its major objectives—Medical and Health Education.

It is recognized that a powerful public urge for better health is causing a constantly increasing demand for expanded medical care. The Foundation recognizes that to meet this challenge, the flow of finest youth into the profession and related fields, must be strongly encouraged. Scholarships, adequate training facilities and expert advice for these future doctors, must be provided.

Postgraduate training programs for practicing physicians must be continued and expanded; medical research, now making splendid progress in certain fields, must be expanded in other fields.

Well aware that Health Education itself is a continuing need, the Foundation is alert to the fact that educational programs must be properly meshed and effectively co-ordinated with changing social and scientific factors. Through well-planned surveys, studies and other investigatory action, the

Foundation can throw light upon these social, scientific and geographic problems as they arise and thus project a constant, authoritative picture of what should be done for the benefit of responsible leaders in the medical-health education field.

The Foundation holds that it is the duty of those vested with the responsibility of administering and distributing educational funds to apportion them in a studied and deliberate manner so that the greatest health gains possible may accrue to the people of Michigan.

Thus, by alert and intelligent administration, the Foundation will hold fast to its established objectives and constantly seek, through studied deliberation, the best ways to implement these objectives.

Entering its seventh year as a Michigan institution, dedicated to "Leading in Learning," the Michigan Foundation has established itself firmly in the field of medical and health education in Michigan. The magnitude of the challenge has been effectively and adequately appraised and long-range objectives have been defined. With the continued support and participation of doctors of medicine and other contributing friends in Michigan, a successful future is assured.

WHY THE NECESSITY FOR IODIZED TABLE SALT?

(Continued from Page 1146)

instances where farmers have purchased iodized stock salt only to experience an outbreak of goiter in their farm animals. On analysis of the salt no iodine was found. Even the more refined table salts may turn brown and give off an odor of free escaping iodine. If all such salt were pure white in color, its use would be materially increased —with a most desirable result in the goiter belts. These conditions prevailed prior to the art of stabilization of iodized salt worked out by the Wisconsin Alumni Research Foundation. Their method was the blending of an acceptor for any liberated iodine, and by maintaining a reducing rather than an oxidizing action in the salt. The prevention of loss could, therefore, be met by having present in the iodized salt an alkali, an acceptor of iodine, and a reducing agent. None of the substances in the amounts used are harmful to man or animal.

When iodized salt was first introduced, it was believed that the problem of common goiter would be easily settled. It has improved the condition immensely, and with the new method of stabilization, common iodized salt can be maintained for an indefinite period without the loss of iodine.

Since Michigan Salt Company began the distribution of table salt, iodized salt has been one of its items. The best method of stabilization of iodine in table salt was adopted some five years ago, and Crystal Flow Iodized Table Salt, as you will see from observing a sample, is a very fine product.

UNITED-RED FEATHER

(Continued from Page 1153)

of the state these fund drives have been consolidated. Warren B. Cooksey, M.D., of Detroit, one of Michigan's outstanding enthusiasts in health and welfare work, is the president this year. He and his board, in a very few short years, have done a gigantic and magnificent service to the state. The attention of our members is called to the approaching solicitations for funds. We are urged to be generous. We know doctors of medicine give much time and service to the needy, but some few in their professional contacts may fail to meet many of the obligations represented by the United Red Feather.

GIVE—as generously as your means will permit.



MSMS Recognizes Health Leadership in Industry

The Michigan State Medical Society, through its President, Clarence E. Umphrey, M.D., Detroit, presented three awards to General Motors Corporation officials which lauded the progressive leadership of GM in the development of industrial medicine.



(Left) At ceremonies held in the General Motors Building, Detroit, September 14, are, left to right, Max R. Burnell, M.D., Detroit, Medical Director of General Motors; C. E. Wilson, Detroit, President of General Motors; Clarence E. Umphrey, M.D., Detroit, President of MSMS; and Clarence D. Selby, M.D., Detroit, past medical director of G.M.—now Professor in Industrial Health, U. of M. School of Public Health.



(Right) Among those present at the award ceremonies—the third in the nearly 100-year history of MSMS—were, left to right, Otto T. Mallery, Jr., M.D., Ann Arbor, Director, Institute of Industrial Health, U. of M.; C. E. Wilson, Detroit, President of G.M.; Otto O. Beck, M.D., Birmingham, President-elect, Michigan State Medical Society; and J. Joseph Herbert, Manistique, Chairman, Board of Regents, U. of M.

The scrolls were presented to C. E. Wilson, President of General Motors, Max R. Burnell, M.D,. medical director of General Motors, and Clarence D. Selby, M.D., retired medical consultant of the corporation, in ceremonies at the General Motors Building, September 14.

This continued progress in the field of industrial medicine by GM was implemented recently by a $1,500,000 research grant from the corporation to the University of Michigan. The grant established the Institute of Industrial Health at the University of Michigan for the purpose of conducting research on industrial medicine.

Although the Michigan State Medical Society has been in existence for nearly 100 years, this was only the third time that such an award had been made by the state organization.

Dr. Umphrey's presentation speech aptly summed up the Michigan medical profession's feelings in regard to the activities of GM. He said:

"Perhaps there should be two awards made today to Mr. C. E. Wilson: one for his work as an individual as evidenced by his keen interest in health, his chairmanship of the Board of Trustees of the Michigan Heart Association and his personal concern for the personnel employed in the great empire known as General Motors Corporation; the other award might go to Mr. C. E. Wilson, President of General Motors Corporation, as the symbol of that corporation and in recognition of the work done in the health field by General Motors. So that we might not be accused of gilding the lily, only one award is being made to Mr. Wilson and it is expected to do double duty just like one of Mr. Wilson's better trucks. Similar awards will be made today to

two doctors of medicine who have been instrumental in the projects which have caused this recognition to be made.

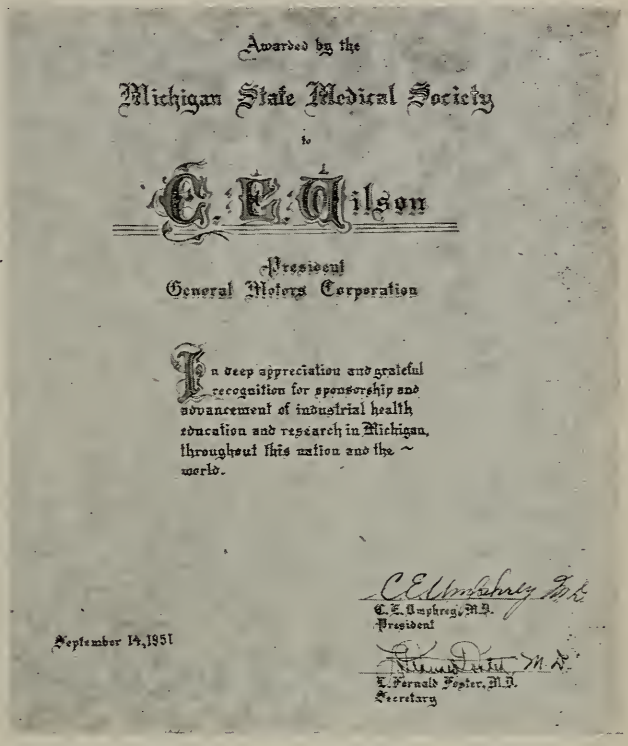
"This award reads in part: 'In deep appreciation and grateful recognition for sponsorship and advancement of industrial health, education, and research in Michigan, throughout this nation and the world.' May I take the liberty of interpreting the real meaning behind those simple words because I believe it important that the significance of the award be understood by all.

"The Michigan State Medical Society does not lightly grant these awards. They are not to be confused with honorary degrees. This is only the third such award which has been given in the nearly 100 years of existence of the Michigan State Medical Society. This award is given only when some Michigan organization or individual carries on, over a period of time, some effort which brings great and beneficial results in respect to the health of large numbers of persons.

"Of course, the recent gift of $1,500,000 by General Motors Corporation for the establishment of the Institute of Industrial Health at the University of Michigan is a causative factor in the making of this award *at this time*. However, and I do not mean to in any way depreciate the value of that magnificent gift, the reason for the award is not because that gift was made. The reason is, rather, the outstanding work that General Motors has done toward the advancement and development of industrial health and industrial medicine through both education and research.

"But a few short years ago, Industrial Medicine was considered to be of little scientific interest. Industrial health was, at best, simply a synonym for plant safety and first aid. Today Industrial Medicine is a great specialty of medicine and industrial health programs are the cornerstone of every plant management activity that directly affects the social well being of the millions of workers who comprise the life blood of production. Nowhere in the world does responsibility for this progress lie more definitely than in the enlightened leadership of Michigan's great industrial organizations among which General Motors Corporation is a giant. General Motors, through the vision of Mr. Wilson and the medical division of the corporation represented by Doctors Burnell and Selby, has assumed world leadership in the development of industrial medicine. This industrial empire has blazed the trail leading to better health for millions, both in the United States and abroad, by its activities of research and education in this new area of specialization."

"I know it can be said further that these men are still unsatisfied. They have plans for a con-


Awarded by the

Michigan State Medical Society

to

C. E. Wilson

President
General Motors Corporation

In deep appreciation and grateful recognition for sponsorship and advancement of industrial health education and research in Michigan, throughout this nation and the world.

September 14, 1951

C. E. Umphrey, M.D.
President

L. Fernald Foster, M.D.
Secretary

tinuation and expansion of their effort in the future. Those plans and the great energies with which they will be pursued offer additional hope to the 39,000,000 workers of America for longer and healthier life.

"That, gentlemen, is a real accomplishment and it is the reason why the medical profession as represented by its official spokesman today humbly expresses its admiration and its appreciation by these small tokens."

Mr. Wilson spoke for both Dr. Burnell and Dr. Selby when he accepted his award. He told the audience of representatives from the Board of Regents of the University of Michigan, Board of Governors of the Institute of Industrial Health, and officials of GM and of MSMS that the research fostered by the corporation is "within the objectives of a free society."

"More and more it is being recognized—and *we* recognize—that corporations like General Motors are social institutions as well as economic. We therefore must concern ourselves with the health of our employes. Machines and money alone won't do the job," Mr. Wilson said.

He pointed out that the research and educational results of the Institute will be made available to all those employed in industry. Much of the research is conducted along lines which would diagnose, treat or prevent occupational diseases.

The impressive guest list of those attending the ceremony from the University of Michigan included Harlan H. Hatcher, Ann Arbor, President; J. Joseph Herbert, Manistique; Michael Gorman, Flint; A. C. Furstenberg, M.D., Ann Arbor; Murray D. Van Wagoner, Detroit; Roscoe O. Bonisteel, Ann Arbor; Cyrus C. Sturgis, M.D.; Ann Arbor; Kenneth M. Stevens, Detroit; and Marvin L. Niehuss, U. of M., Vice President, Ann Arbor.

Representatives of the Institute of Industrial Health were H. Marvin Pollard, M.D., and O. T. Mallery, Jr., M.D., both of Ann Arbor.

General Motors officials attending were J. F. Gordon, R. K. Evans, L. G. Seaton, A. G. De Lorenzo, K. Youel, Felix Bruner, and Earl F. Lutz, M.D., all of Detroit.

Michigan State Medical Society representatives were C. E. Umphrey, M.D., Detroit; Otto O. Beck, M.D., Birmingham; Andrew S. Brunk, M.D., Detroit; Wilfrid Haughey, M.D., Battle Creek; J. E. Livesay, M.D., Flint; William J. Burns and Hugh W. Brenneman, both of Lansing.

ELIMINATING UNNECESSARY LOSS OF PHYSICIANS' FEES

Discussed at the MSMS Council Session of July 1-2-3, 1951, was the desirability of a co-operative arrangement between hospitals, the Michigan Crippled Children Commission and doctors of medicine whereby the administrative staffs of all hospitals handling crippled and afflicted children cases will notify the doctor in attendance that the child is under the Crippled or the Afflicted Children Law so the doctor may bill the Commission within sixty days after discharge of the patient from the hospital (as per statute). The doctor can bill the Michigan Crippled Children Commission once per month, which is desirable.

In order to eliminate all future misunderstandings, the following suggestion has received the approval of officers of the Michigan Hospital Association and of the Michigan Crippled Children Commission: that the Commission supply hospitals with an extra copy of MCCC Form No. 56 (Hospital Entrance Report) so the hospital may present a copy to the attending physician either before or immediately after the service is rendered. This form will give the doctor all pertinent information, including the patient's insurance coverage.

Such a procedure, made possible through the co-operation of the hospitals and the Michigan Crippled Children Commission, will assure the attending physician(s) of prompt receipt of fees, if billed within sixty days after patient's discharge from hospital.

Chief(s) of staff(s) of hospital(s) should arrange an early conference with the administrative staff of the hospital(s) so that this co-operative arrangement can be instituted in all localities. It will be put into effect by the MCCC on or before November 1, 1951.

ANESTHESIA IN CHEST SURGERY

(Continued from Page 1142)

It should be emphasized that in our endeavors to remove secretions, we do not persist in suctioning the patient for a prolonged period without oxygen, and cause an anoxic state. Repeated intermittent suctioning and then oxygenation is a safer procedure. Adequate expansion and aeration of the lungs is determined prior to withdrawing the endotracheal tube and immediately afterwards.

Summary

A discussion is presented of the problems arising during anesthesia of the patient having chest surgery, and the various aids at our disposal for maintaining both an adequate ventilation and a normal functioning circulatory system.

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OFFICE MOVED

The office of the Cancer Control Committee, Michigan State Medical Society, which has been in Jackson during the past year, has been moved to the headquarters of the Society at 606 Townsend Street, Lansing 15, Michigan. This has been done in order to concentrate all committee activties of the MSMS in the new permanent office at the above address.

If a surgeon is not competent to perform a panhysterectomy, he is equally incompetent to perform a subtotal hysterectomy.

* * *

Radiotherapists can cure from 70 to 75 per cent of all Stage 1 carcinoma of the cervix, according to Dr. Simone Laborde of the Institute of Cancer, Paris, France.

Grand View Hospital Case

Circuit Judge Thomas J. Landers of Gogebic County recently handed down an important opinion in litigation between a chiropractor and the trustees of Grand View Hospital, Ironwood, Michigan.

Criminal charges were pressed alleging that the trustees unlawfully discriminated against a chiropractor when they refused him the use of the Hospital for his practice.

Charges against the trustees were dismissed as, under the terms of Act 350, Public Acts of 1913, trustees are given authority to determine rules for the hospital. The rules state that no person shall practice medicine in the hospital unless he has a license from the State of Michigan to practice medicine. This Circuit Court decision is in direct variance to portions of recent opinions on this subject issued by the present Attorney General and his immediate predecessor.

A petition to have this decision reviewed was denied by the Michigan Supreme Court in September, 1951.

The Landers' decision which follows helps maintain the high standards of medical care both in and out of medical hospitals.

STATE OF MICHIGAN
IN THE CIRCUIT COURT FOR THE COUNTY OF GOGEBIC

THE PEOPLE OF THE STATE OF MICHIGAN

— vs — File No. 11778

STANLEY TYACK,
RESPONDENT

OPINION ON MOTION TO QUASH AND DISMISS INFORMATION

The manager and members of the Board of Trustees of Grand View Hospital were arrested on the criminal complaint of M. E. Gingrich, a licensed and practicing chiropractor of Ironwood, Michigan. Separate warrants authorized by the prosecuting attorney charged each defendant with wilful neglect of a public duty in discriminating against the complaining witness. The defendants demanded a preliminary examination. Counsel agreed that all of the cases would be governed and abide the decision of the magistrate upon one examination. Briefly, there was testimony to the effect that the complaining witness brought a patient to Grand View Hospital at nine-thirty P.M. on March 2, 1951; that they were refused admission; that complainant had previously received a copy of the rules adopted by the trustees of the hospital, which provided that no person was allowed to practice medicine in the hospital unless he held a license to practice medicine and surgery in the State of Michigan. At the conclusion of the examination a motion to dismiss the complaints was denied. The defendants were bound over to the Circuit Court for trial. Upon arraignment they stood mute and a plea of not guilty was entered for them. Sec. 767.37 C.L. 1948. Written motions to quash and dismiss the informations were filed, in which the defendants raised questions as to the sufficiency of the informations, and of the evidence to bind the defendants over for trial.

The objections of the prosecution that the defendants' motions were not seasonably filed cannot prevail. A motion made any time before trial is sufficient. These questions were properly preserved and timely presented. In Barnard vs. Judge of Superior Court, 199 Mich. 227, it was held (syllabus):

"A motion may be made in the trial court, before the jury is sworn, to dismiss criminal proceedings originating before the policy magistrate, on the ground that the preliminary examination fails to show that a crime has been committed or that there is probable cause to believe the respondent is guilty, and upon such a motion the court will consider the evidence adduced before the magistrate and pass upon the propriety of his determination."

Cases in point and to the same effect are: People v. Lee, 231 Mich. 607; People v. Maki, 245 Mich. 455; People v. Westerberg, 274 Mich. 647; People v. Karcher, 322 Mich. 158, p. 162, and People v. Lightstone, 330 Mich. 672.

This being a criminal case, we must approach the matter from that aspect. Courts decide only the legal questions presented and leave the policy of the law to the legislative power. People v. Lewis, 233 Mich. 240. It is a cardinal rule of law and common justice that a criminal charge must set forth facts with clearness and certainty sufficient to apprise the accused of the offense with which he is charged.

The contention of the defendants that the charge set forth in the informations is not specific and definite, is not without merit. The informations do not state what duty it is claimed the hospital officials failed to perform. Was it failure to provide equipment and facilities for chiropractors to treat their patients? Did they discriminate between the complaining witness and other chiropractors? Was it a crime to adopt a rule that only persons licensed to practice medicine and surgery in Michigan could practice in the hospital? Under the law the defendants have a right to know what claimed misconduct on their part constituted a crime.

In People v. Brown, 299 Mich. 1, the Court said:

"The question here presented has been plainly passed upon by this court many times. 'Wherever it is essential to apprise the respondent of the precise offense charged, and an averment in the language of the statute is not sufficient to do so, the courts will require that the information be more specific. People v. Taylor, 96 Mich. 576.'"

To the same effect see People v. Maki, 245 Mich. 455; People v. Goulding, 275 Mich. 353; People v. Lightstone, 330 Mich. 672. Tested by these principles of law laid down by our Supreme Court the informations must be held insufficient.

The criminal charges are brought under the following statutes:

Sec. 450.478 (478) C.L. 1948
"PUBLIC OFFICES AND OFFICERS
"WILFUL NEGLECT OF DUTY. When any duty is or shall be enjoined by law upon any public officer, or upon any person holding any public trust or employment, every wilful neglect to perform such duty, where no special provision shall have been made for the punishment of such delinquency, shall be deemed a misdemeanor punishable by imprisonment in a county jail for not more than 1 year or by a fine of not more than $500.00."

Sec. 331.163 (13) C.L. 1948.
"DISCRIMINATION: RIGHT OF PATIENT TO EMPLOY PHYSICIAN, NURSE; Sec. 13. In the management of such public hospital no discrimination shall be made against practitioners of any school of medicine recognized by the laws of Michigan and all such legal practitioners shall have equal privileges in treating patients in said hospital. The patient shall have absolute right to employ at his or her own expense his or her own physician or nurse, and when acting for any patient in such hospital the physician employed by such patient shall have exclusive charge of the care and treatment of such patient, and nurses therein shall as to such patient be subject to the directions of such physicians, subject always to such rules and regulations as shall be established by the board of trustees under the provisions of this act."

The defendants are charged under the first statute, Sec. 478, with wilfully neglecting to perform duties as public officers or while holding positions of public trust. This statute in its original form was enacted more than a century ago, but we have been unable to find, and no case has been cited, where any person was ever prosecuted under this act. However, there is a decision, State v. Brattrud, 210 Minn. 214, 297 N.W. 713, where a prosecution brought under a similar act and almost identical with the Michigan statute, was dismissed by the Court. In that case the mayor of the city of Waseca was accused of wilful neglect of official duty, in wilfully refusing to sign a warrant in payment of a bill for road oil contracted for; and wilfully refusing to sign a contract with certain engineers to proceed with a preliminary survey for a sewage disposal plant as authorized and directed by the city council. In sustaining demurrers (motion to dismiss) the Minnesota Supreme Court held:

"It seems obvious to us that the provisions making wilful neglect of duty imposed by law upon a public officer a gross misdemeanor were not intended to apply to cases where the duty to be performed is not strictly and purely ministerial but pertains to public affairs necessarily involving questions of the legality of proceedings leading up to the duty imposed upon the public officer. Necessarily, there is involved in the imposition of such duty a responsibility on his part to determine for himself whether or not the proceedings up to that point have pursued a legal course. We do not mean by this that he has a discretion as to determining policy in connection with such matters as are here involved unless the law or the charter vests him with such discretionary or veto power; but, if the duty imposed upon him is of such character that as a matter of public interest he must, in the faithful discharge of his duties, scrutinize the preceding proceedings in order to determine whether in fact his duty has arisen, then we think that there was no intent upon the part of the legislature to subject the public officer to a criminal proceeding in case he concludes, *perhaps erroneously*, that the proceedings are illegal or that the signing of the documents, as here presented, would lead to the payment of an illegal claim against the city or the making of an illegal contract."

In Commonwealth v. Hubbs, 137 Pa. Sup. 244, 8 A. 2nd 618, it was held that where the nature of the duties of public officers are such as to permit the exercise of discretion, there must be present in addition to the failure to perform that duty, the element of an evil or corrupt design, to warrant conviction for misbehavior in office.

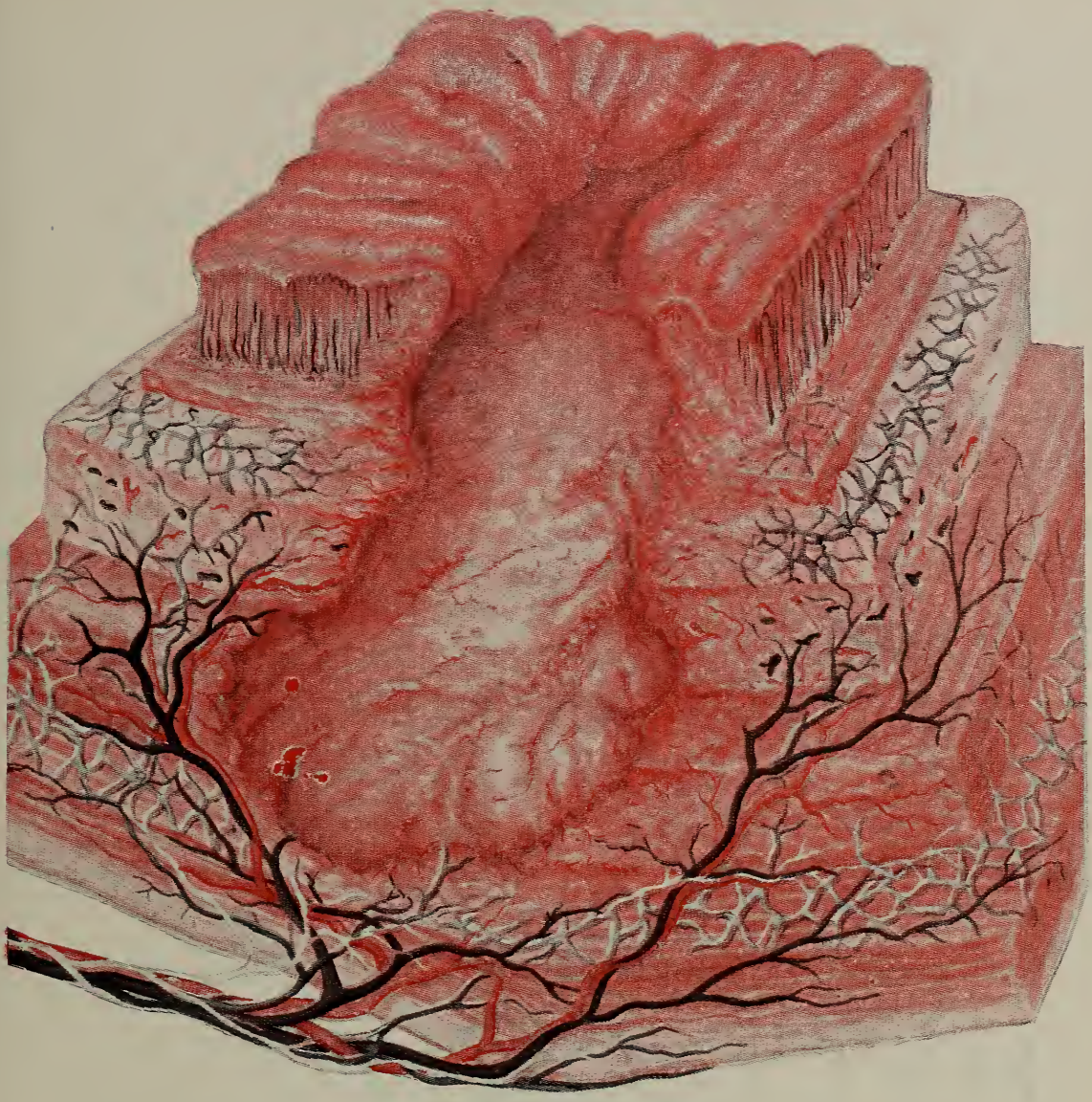
Under the authorities of other states it seems established that a public officer cannot be subjected to criminal prosecution for failure to perform duties which require the exercise of discretion on his part, where there is no element of an evil or corrupt design in his conduct. A criminal prosecution will not secure the performance of a public duty, which is the main purpose of the law, and which cannot possibly be left to the option of any one. Ayers v. State Auditors, 42 Mich 422 (1880).

Under the second statute, Sec. 13, the defendants are charged with discriminating against M. E. Gingrich, who claims to be a practitioner of a *school of medicine*, under the provisions of the act, but we are referred to no statute or case where the legislature or a Michigan court has ever defined the meaning of the term "school of medicine." So there is here presented an anomalous situation. The Legislature has never defined and our Supreme Court has never decided the meaning of the term, and yet the prosecution demands that the manager and trustees of Grand View Hospital be held for trial on criminal charges for failure to resolve upon the theory of the prosecution, what the Legislature meant by "school of medicine." This the Court declines to do. To uphold the informations and force the defendants to trial in these cases would be legislating that the term "school of medicine" included a school where chiropractic was taught. In People v. Kightlinger, et al, 89 N.Y. 2nd 755, 194 Misc. 607, (1949) the defendants were indicted under a statute prohibiting the conduct of a "school of medicine," without a permit to do so, for advertising that a school was to be conducted under the title "Chiropractic Institute of New York." The Court held that the mere use of a pamphlet called "Chiropractic Institute of New York" is no proof upon which one could imply that the defendants were carrying on a "school of medicine." The teaching of chiropractic is not prohibited by any law adopted by our Legislature. The mere use of the name *"Chiropractic Institute of New York" would fool no one into believing that if he attended the school that he would be taught medicine,* or that the school was engaged in teaching medicine. The Motion to dismiss the indictments granted."

It is unnecessary to cite authority that courts do not have the power to legislate but merely to interpret statutes that have been adopted by the Legislature. The question of the merits of a system of healing pursued for profit, is for the legislative body which enacts the laws regulating its practice, and not for the courts. People v. Rose, 218 Mich. 642. Courts should not give a strained construction to a statute, so as to impose penal liability on a public officer in the performance of his duties. In Erdman v. Great Northern Life Ins. Co. 253 Mich. 579, the Court held that a chiropractor was not a licensed physician or surgeon.

The Grand View Hospital was established under Act 350, Public Acts of 1913, provisions of which are as follows:

(Continued on Page 1164)



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One or two tablets (50 to 100 mg.) every six hours.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

Say you saw it in the Journal of the Michigan State Medical Society

(Continued from Page 1162)

"Sec. 331.154 (4) C.L. 1948:

"SAME; OATH, ORGANIZATION, BUSINESS CONTROL POWERS, EXPENSES, MEETINGS, QUORUM, RECORD; INTEREST IN CONTRACTS; BORROWING POWER. * * * * * * * The Board of hospital trustees shall make and adopt such by-laws, rules and regulations for its own guidance and for the government of the hospital as may be deemed expedient for the economic and equitable conduct thereof, not inconsistent with this act, and the ordinances of the city or town wherein such public hospital is located * * * * * *."

Sec. 331.161 (11) C.L. 1948.

"RULES. Sec. 11. When such hospital is established, the physicians, nurses, attendants, the persons sick therein and all persons approaching or coming within the limits of same, and all furniture and other articles used or brought there, shall be subject to such rules and regulations as said board may prescribe."

The legislature had the right to delegate to the Board of Trustees of Grand View Hospital power to make rules and regulations for the guidance and government of the hospital, physicians, nurses and patients, etc. The Board of Hospital Trustees adopted the following rules:

"ARTICLE V.

"The Medical Staff of this hospital shall consist of physicians and surgeons who have been licensed to practice medicine and surgery in the State of Michigan * * * * *."

"ARTICLE XVI.

"No person shall be allowed to practice medicine in this hospital unless he has in full force and effect a license from the State of Michigan to practice medicine and surgery in all its branches. * * * * *."

The rules adopted by the Trustees of Grand View Hospital do not violate any legislative act and meet the requirements of the exercise of the rule-making power of the hospital board. The Courts are not inclined to interfere with the rules established by legislative direction, where those rules bear a reasonable relation to the subject of legislation and are a reasonable exercise of the powers conferred.

The case of Argo Oil Corp. v. Atwood, 274 Mich. 47, cited in an opinion of the former Attorney General, A.O. No. 1166, does not lend support to his contention that there was an illegal delegation of power to the board of hospital trustees. In that case the plaintiff sought a writ of mandamus to compel the Secretary of State to issue a license (wholesale oil distributor). He refused to issue the license until the plaintiff furnished a $15,000.00 bond *as fixed by the Secretary of State.* The Court held:

"It is too well settled to need the citation of supporting authorities that the legislature, *within limits defined in the law* may confer authority on an *administrative officer or board to make rules* as to details, to find facts *and to exercise some discretion* in the administration of the statute. The difficulty is in determining whether the limits are sufficiently defined to avoid delegation of legislative powers * * * *. The statute confers no legislative or arbitrary power on the secretary of state but vests in him merely a *discretion to be exercised within definite legal limits and is not invalid.* Writ denied."

The general public have a right and are entitled to the services of their public servants free and unfettered by the fear of criminal prosecution in the exercise of a discretionary duty, and a public official or person holding a position of public trust is not to be intimidated or hampered in the performance of his public duties by the threat of arrest or reprisal, even if, while acting in good faith he commits an error in judgment.

For the reasons herein stated the motions to quash and dismiss the informations are granted, and the defendants discharged. (signed) THOMAS J. LANDERS, *Circuit Judge*

August 6, 1951.

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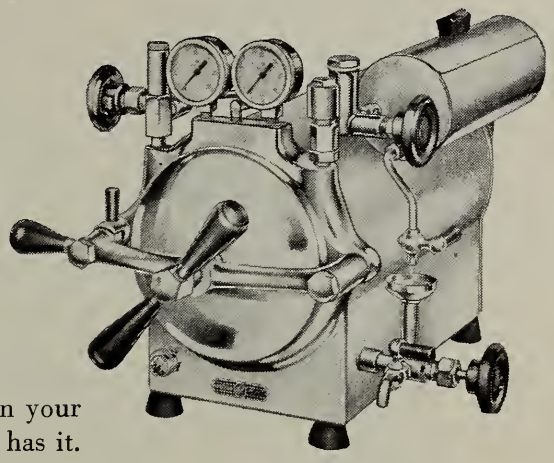
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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

A project designed to determine whether a local medical society working in close co-operation with a local health department can effectively control infectious syphilis without assistance or intervention of other agencies, is now under way in Muskegon and will be completed October 31.

Under this project, sponsored jointly by the Muskegon County Medical Society and the Muskegon County Health Department, each physician interviews his primary or secondary syphilis cases to get the names of contacts, and reports both cases and contacts to the local department. Unless the physician requests otherwise, the local health department may re-interview the patient for additional contacts. The local health department traces all contacts and refers them to the physician of their choice or to the local venereal disease clinic.

The physicians are paid a set fee for contact interviewing and for examination of contacts. Drugs for the treatment of cases are furnished to the physicians by the Michigan Department of Health through the local health department. Treatment of the patient by the private physician is done without financial assistance from the health department but the local health department provides treatment for patients referred to the venereal disease clinic by the private physicians.

Chest x-rays are being made of more than 5,000 Great Lakes Merchant Seamen during September and October as their ships pass through the locks at Sault Ste. Marie.

As each ship passes through the locks, crew members not on duty or sleeping disembark in groups of four, have their chests x-rayed and return to ship, necessitating no delay in transit. X-ray equipment furnished and operated by the United States Public Health Service is set up between the third and fourth locks in a portable housing unit.

The project is a co-operative enterprise of the Michigan Department of Health, the United States Public Health Service, the Chippewa-Luce-Mackinac Health Department and the Great Lakes Carriers' Association to find any tuberculosis which may exist among the crew members of the fleets of the Lake-Carriers' Association.

The x-ray films are developed and studied for tuberculosis and any other abnormal chest conditions in the Michigan Department of Health Lansing offices. The Department reports its findings to the Lake Carriers' Association which uses fleet radiotelephone to notify crewmen with abnormal chest conditions to report to marine hospitals for re-checks.

In the first survey of this type conducted last year, seventy-nine suspected cases of tuberculosis and a number of other abnormal chest conditions were found among the crew members surveyed.

Responsibility for the regulation and licensing of maternity homes and hospitals was transferred from the Department of Social Welfare to the State Health Commissioner by Act 231 Public Acts of 1951.

This responsibility falls naturally within the operations of the State Health Department's Maternal and Child Health Section.

Under the Act, the State Health Commissioner is authorized to issue licenses for the operation of maternity homes and hospitals if he is satisfied that the applicant is a qualified person and if the premises are suitably and properly arranged.

The State Commissioner of Health is empowered to prescribe rules and regulations for the conduct of maternity homes and hospitals and may revoke any license upon the violation of any rules and regulations established by him. The Act takes effect October 1, 1951.

Three new hearing consultants have recently completed an intensive course of orientation in state and local health department policies, procedures and coordination provided by the Michigan Department of Health, and they are now available to help local health departments with their local hearing conservation programs.

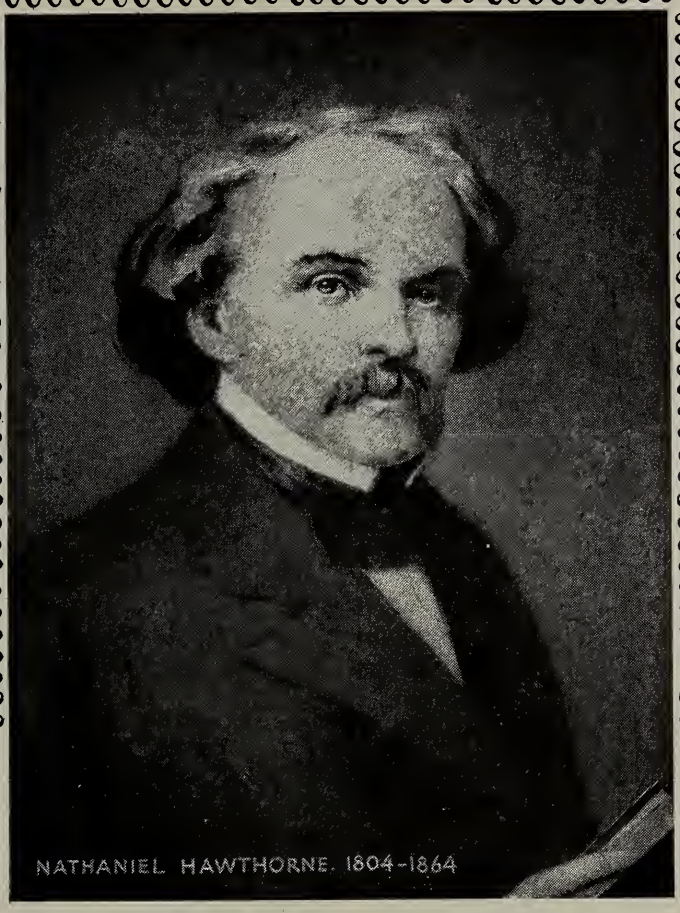
The Michigan Hearing Conservation program has been expanded this year to meet insistent demands from local school officials, health departments, and civic groups. The new consultants are among five who assist in the program.

Last year the hearing conservation program reached 137,244 school children in twenty-eight counties. These were screened for hearing loss. Of them, 10,030 were given individual audiometric tests by Michigan Department of Health consultants, and 2,855 were given otological examinations by fifty-seven practicing otologists who are participating in the program.

Births recorded in the first six months of 1951 exceeded by 1,904 the births for the first six months of the previous record high year, 1947. If the increase of births continues through the rest of the year, 1951 births will set an all-time record.

A total of 80,895 births were registered in Michigan in the first six months of this year, a gain of 11.7 per cent over the 72,348 births recorded in the same months of 1950; and a gain of 2.4 per cent over the 78,891 births recorded in the same months of the previous record year, 1947.

(Continued on Page 1168)



Psychoneurotics of Genius

Hawthorne, distinguished American novelist, is said to have been afflicted with a psychoneurosis from early childhood. His quiet life, wholly detached from the major activities of the times, was largely given over to brooding solitude.

The majority of psychoneurotics have no serious mental illness, but display merely an emotional imbalance which often can be greatly improved by appropriate psychotherapeutic and sedative management. In the treatment of psychoneurosis, particularly agitated, depressed and anxiety states, Mebaral is especially useful when tranquillity with minimal hypnotic action is desired. Sedative dose: Adults, from 32 mg. to 0.1 Gm. (½ to 1½ grains) three or four times daily. Children, from 16 to 32 mg. (¼ to ½ grain) three or four times daily. Supplied in tablets of 32 mg., 0.1 Gm. and 0.2 Gm.

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Relationship of Stress to Autonomic Lability

Studies in psychosomatics have shown that functional disorders often are a result of the patient's inability to adjust to emotionally stressful situations (stressor factors).

Nervous tension and chronic anxiety, discharged through a labile Autonomic Nervous System, can cause somatic disturbance. [1,2] Such states may involve any one of the organ systems or several at one time. [1,3] The outline below is designed to relate gastrointestinal and cardiovascular symptomatology to the exaggerated response of the autonomic nervous system.

	Physiologic Effects of Autonomic Discharge	
	Sympathetic	Parasympathetic
Gastro-intestinal System	Hypomotility Intestinal Atony Hyposecretion Reduced salivation	Hypermotility Gastrointestinal spasm Hypersecretion
Cardio-vascular System	Rapid heart rate Peripheral vaso-constriction	Slow heart rate Vasodilatation
Functional Manifesta-tions	Palpitation Tachycardia Elevated blood pressure Dry mouth and throat	Heartburn Nausea-vomiting Low blood pressure Colonic spasm

The data here tabulated is from references [3,4,5,6,7] given below.

When the clinical picture is suggestive of functional disorder, the diagnosis is supported by the presence of the following indications of autonomic lability:

Variable Blood Pressure
Body Temperature Variations
Changing pulse rate
Deviations in B. M. R.
Exaggerated Cold Pressure Reflex
Oculo-Cardiac Reflex Abnormalities
Glucose Tolerance Alterations

Therapy in these cases is directed toward: 1) relieving the somatic disturbance to prepare the patient for psychotherapy*; 2) guidance in making adjustment to stressful situations and correction of unhealthy attitudes.

*Drug treatment using adrenergic and cholinergic blocking agents in conjunction with sedatives. [8,9,10]

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Sandoz Pharmaceuticals

DIVISION OF SANDOZ CHEMICAL WORKS, INC.
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(Continued from Page 1166)

January, February and March births this year showed a slight but continuing increase over last year. April showed a 23 per cent increase over April, 1950. There was a 15.3 per cent gain in May and an 18.5 per cent gain in June. Most of the increase is linked to the marriage license upswing that began in June of 1950 at the start of the Korean war.

The Communicable Disease Center, Chamblee, Georgia, no longer accepts diagnostic laboratory specimens directly from private laboratories or private physicians. In Michigan they accept only specimens sent by or through the laboratories of the Michigan Department of Health.

Any specimens sent directly to the Communicable Disease Center from private laboratories or private physicians in Michigan will be returned unexamined to the laboratories of the Michigan Department of Health for processing.

The Laboratories of the Michigan Department of Health have a new look from the highway, with the middle section of the fifteen-year-old honeysuckle hedge and the high fence removed. The main laboratory buildings as well as the Administration Building now show from the road.

The Film Loan Library of the State Health Department contains nearly 500 films, film strips and slides on seventy different health subjects which are loaned to groups without charge as a state tax-provided health education service.

Last year three-quarters of a million Michigan people saw health films from the State Health Department Library. The films were shown to 10,000 groups, including television audiences.

New films added to the library this year include such subjects as mental health, protection against atomic attack, emotions of children, heart disease, marriage and family living, first aid, safety, nutrition and problems of aging.

Among other popular subjects are cancer, polio, immunization, colds, baby sitters, water and milk sanitation, dental health, human reproduction and care of the skin.

Health films can be borrowed by sending a request to Visual Education Service, Michigan Department of Health, Lansing 4, Michigan, about three weeks in advance of the desired showing time. A catalog listing the films is in each local health department office. Where there is no local health department a copy of the catalogue can be obtained from the Michigan Department of Health.

Reappointment of Dr. Albert E. Heustis as State Health Commissioner was confirmed by the Senate, August 20.

(Continued on Page 1170)

they deserve the best . .

Implicit in a happy healthy childhood is maximal nutrition—and one of the essential dietetic guideposts to vigorous adulthood is adequate vitamin C[1,2,9] (¼-4 oz. for infants up to 1 year;[10,11] 4-8 oz. for older children).[4] Fortunately, most every youngster likes the taste of Florida orange juice and the "lift" its easily assimilable fruit sugars* provide.[6] It is well-tolerated and virtually non-allergenic.[3] And, under modern techniques of processing and storage—it is possible for citrus fruits and juices (whether fresh, canned or frozen) to *retain their ascorbic acid content,[5,8] and their pleasing flavor,[7] in very high degree and over long periods.*

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Citrus fruits — among the richest known sources of Vitamin C — also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.

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FLORIDA
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Tangerines



(Continued from Page 1168)

SURVEY OF THE CANCER BULLETIN

A questionnaire was prepared containing the following questions to be answered "yes" or "no":

"Do you read *The Cancer Bulletin?*"

"Do you find it interesting?"

"Does it benefit you professionally?"

"Should it be continued?"

This survey was conducted to determine the usefulness of this publication and to justify its cost. The following results of the survey appear in four tables with the addition of an analytical summary of the data and a final conclusion.

TABLE I—RESPONSE TO QUESTION 1

"Do you read *The Cancer Bulletin?*"

Answer	*Number*	*Per Cent*
Yes	2,536	92
No	169	6
No answer	27	1
Other	27	1
Total	2,759	100

TABLE II—RESPONSE TO QUESTION 2

"Do you find *The Cancer Bulletin* interesting?"

Answer	*Number*	*Per Cent*
Yes	2.476	97.6
No	27	1.1
No answer	19	0.7
Other	14	0.6
Total	2,536	100.0

TABLE III—RESPONSE TO QUESTION 3

"Does it benefit you professionally?"

Answer	*Number*	*Per Cent*
Yes	2.341	92.3
No	110	4.3
No answer	70	2.8
Other	15	0.6
Total	2,536	100.0

TABLE IV—RESPONSE TO QUESTION 4

"Do you wish to continue receiving *The Cancer Bulletin?*"

Answer	*Number*	*Per Cent*
Yes	2,438	88.4
No	176	6.4
No answer	139	5.0
Other	6	0.2
Total	2.759	100.0

Brief Summary

1. The summary and data are based on the returns received three weeks after the original posting. A few returns are still coming in and these will not be included in our tables.

2. A total of 6.425 questionnaires were sent out and replies were received from 2,759 (43 per cent); 57 per cent did not reply. The 43 per cent return was most gratifying since this figure is considerably higher than what was expected.

3. Of the 2,759 cards received, 2,310 (85 per cent) answered "yes" to the four questions; forty-four (2 per cent) answered "no" to all questions; and 405 (14 per

(Continued on Page 1172)

"In general, symptomatic improvement [of menopausal symptoms] was striking within 7 to 14 days after treatment..." with "Premarin."

Gray, L.: J. Clin. Endocrinol. 3:92 (Feb.) 1943.

Many clinicians have found that "Premarin" therapy usually brings about prompt relief of distressing menopausal symptoms. Furthermore, symptomatic improvement is followed by a gratifying sense of well-being in a majority of cases. This is the "plus" in "Premarin" therapy which tends to quickly restore the patient's normal mental outlook.

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SURVEY OF THE CANCER BULLETIN

(Continued from Page 1170)

cent) answered questions with "yes" and "no." A few left some questions unanswered.

4. 92 per cent read *The Cancer Bulletin* regularly and 6 per cent do not read the bulletin at all.

5. 88.4 per cent wish to continue receiving the bulletin, and 6.4 per cent feel that it should be discontinued.

6. 97.6 per cent find *The Cancer Bulletin* interesting, and 1 per cent find it uninteresting.

7. 92.3 per cent feel that it is of professional benefit, and 4.3 per cent are not benefited.

8. While no provision was made for signatures or comments on these cards, many of the participants voluntarily signed their names to the questionnaires and many comments were offered. A few comments concerned the expense involved in supplying *The Cancer Bulletin*. A similar group of specialists including radiologists, pedriatricians, gynecologists, E.E.N.T., surgeons, and internists suggested that more technical information be included. The majority of comments were highly commendable and urged that *The Cancer Bulletin* be continued.

In conclusion, the indicated response shows that *The Cancer Bulletin* is a valuable aid to a high percentage of the medical profession, which justifies the expense involved. Subscriptions to *The Cancer Bulletin* will be continued by the Michigan Department of Health for another year in the interest of the Cancer Control Program as planned through the Michigan Cancer Control Committee.

NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS

The National Society for the Prevention of Blindness has gone on record as favoring continued use of 1 per cent silver nitrate solution as the preferred prophylactic agent in preventive treatment of "babies' sore eyes" (ophthalmia neonatorum)—a disease that formerly caused more than one-fourth of all blindness among American children.

There has been considerable research in the last few years on the use of penicillin rather than silver nitrate for this purpose.

This action was taken at a meeting of 25 medical consultants to the National Society, held at the Marlborough-Blenheim Hotel in Atlantic City, in conjunction with the current sessions of the American Medical Association.

According to Dr. Franklin M. Foote, executive director of the National Society, the Medical Advisory group felt that additional scientific research is needed before penicillin can be accepted as a safe and adequate substitute.

Reportng the action of the medical advisory group, Dr. Foote said:

"The committee considered research which has been carried on at the Johns Hopkins Hospital, Cornell

(Continued on Page 1174)

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Only *47.1 per cent* of patients can be fitted with a size 70 or 75 diaphragm[1] (the most commonly prescribed sizes).

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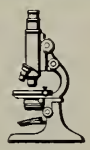
Thus, the need for correct fitting and a *wide range of diaphragm sizes* is evident. A diaphragm which is too small or too large will not block access to the cervix along the anterior wall.[2]

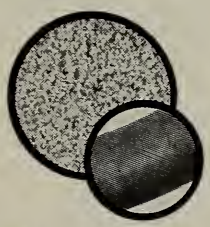
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1. Clark, Le M.: The Vaginal Diaphragm. St. Louis, C. V. Mosby Company, 1938; p. 43.
2. Dickinson, R. L.: Techniques of Conception Control. Boltimore, Willioms & Wilkins Compony, 1950; p. 17.





Unretouched photomicrogroph of the dome (enlarged 10 diameters) and the rim (inset) of a "RAMSES" Flexible Cushioned Diaphrogm.



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Communications

To the Editor:

The American Diabetes Association has chosen the week of November 11 to 17, 1951, as Diabetes Week. During this week efforts will be made to discover diabetics who are not aware of their disease.

The Sub-committee on Diabetes of the Michigan State Medical Society and the Michigan Diabetes Association are co-operating in this detection drive, and it is the hope of this committee that each county society shall appoint a committee on Diabetes Detection to carry on the work at the county level. Each county society is asked to use the local newspapers, radio, and any other available methods to urge the public to visit their family physician and request an examination. In some localities it may be possible to set up detection stations where urine can be tested. The results of these tests should be reported to the family physician for interpretation. It is also important that the members of the profession discuss the matter with the officers and managers of industrial plants. They should be made aware of the importance of tests for diabetes among their workmen.

The Sub-committee on Diabetes and the Michigan Diabetes Association have literature available to aid in the local campaigns, and will furnish copies of radio or newspaper script as well as other pertinent information upon request.

Wm. M. LeFevre, M.D., *Chairman*
Sub-committee on Diabetes

* * *

Dear Dr. Haughey:

I have just returned from a month's trip to England and Scotland and I am enclosing a clipping which I thought might be of interest to the members of the Michigan State Medical Society, indicating a very dangerous trend in England that would point out to us one of the serious dangers of Socialized Medicine.

In traveling thousands of miles through Great Britain in small communities as well as in large, I had the opportunity of conversing with many people both professional and otherwise. I find that with one exception they were disappointed in and discouraged with the program of Nationalized Medicine they have had for the past several years.

The main complaint is from the man in the middle income group and also from families in the low income group, that they are unable to secure the type of medical and hospital service which they need. Because of the great pressure on doctors and hospitals, patients must wait often days and weeks before they can secure an appointment with the physician and often months before they can be admitted to the hospital.

The main complaint from the doctors was not of their reduced income, but of the fact that the multiplicity of government orders and government forms took up so much of their time which they should be devoting to diagnosis and treatment.

The taxpayer is appalled by the unexpected, gigantic cost of the program and in most centers the doctors at least wish that they had never entered into any such agreements.

Yours very sincerely,
Hartman A. Lichtwardt, M.D.
Medical Director, Woman's Hospital

Sept. 12, 1951

NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS

(Continued from Page 1172)

University Medical College, University of Iowa, Ohio State University, and in Trenton, New Jersey.

"It was felt that additional scientific research should be carried on in well supervised training centers to explore further the effectiveness of various antibiotics, the question of sensitivity, and the possibility that strains of some bacteria may develop a resistance to certain of the antibiotics.

"In the prevention of blindness from 'babies' sore eyes' emphasis should also be placed on medical care of expectant mothers, and treatment of any infection that may be found of the genital tract.

"The medical advisory group also discussed questions concerning eye research, glaucoma, and education of the partially seeing child."



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. . . . . NEWS MEDICAL

The Medical Advisors of the **Clara Elizabeth Fund for Maternal Health** of Flint, Michigan, present for the Genesee County Medical Society, and for all obstetricians and pediatricians of Michigan, the Second Annual Fund Lectures. These will be given on November 7, 1951, 1:30 to 5:00 p.m. at Hurley Hospital auditorium, Flint, Michigan.

Speakers and topics are as follows: Chairman, Alexander Campbell, M.D., Grand Rapids, Michigan. "Causes of Death in the Newborn Period," Edith L. Potter, M.D., Assistant Professor Pathology, Obstetrics and Gynecology, University of Chicago; "Problems of Infertility," Francis B. Carter, M.D., Professor of Obstetrics and Gynecology, Duke University of North Carolina, and "Diagnosis and Treatment of Obstetrical Hemorrhages," Frederick H. Falls, M.D., Professor of Obstetrics and Gynecology, University of Illinois.

MICHIGAN AUTHORS

Albert E. Heustis, M.D., M.P.H., and **Donald Van Farowe,** of Lansing, published an article entitled "X-Ray Radiation Study Shows Hazards Can Be Controlled," in *Hospitals,* August, 1951.

Sidney Friedlaender, M.D., and **Alex S. Friedlaender, M.D.,** of Detroit, published an article entitled "Effect of Cortisone Administered Orally in Bronchial Asthma" in *The Journal of the American Medical Association,* August 11, 1951.

Samuel J. Nichamin, M.D., and **Herbert L. Kallet, M.D.,** of Detroit, published an article entitled "Anomalous Anal Papillae in Infants and Children" in *The Journal of Pediatrics,* St. Louis, April, 1951.

J. B. Wyngaarden, M.D., and **M. H. Seevers, M.D.,** of Ann Arbor, published an article entitled "The Toxic Effects of Antihistaminic Drugs" in *The American Practitioner and Digest of Treatment,* August, 1951.

Reuben L. Kahn, Sc.D., of Ann Arbor, published an article entitled "Present Status of Universal Reaction in Health and Disease" in *The University of Michigan Medical Bulletin July,* 1951

Ralph Lee Fisher, A.B., M.D., F.A.C.P.; Morris Zukerman, M.S., M.D., and **Donald N. Sweeny, Jr., M.D., F.A.C.S.,** of Detroit, published an article entitled "Thrombo-Angitis Obliterans in Women—Report of a Case" in *The Journal of Angiology,* April, 1951.

George A. Zindler, M.D., F.A.C.A., of Battle Creek, published an article entitled "Pyromen Therapy in the Treatment of Food Allergy—A Preliminary Report" in *Annals of Allergy,* July-August, 1951.

J. H. Maxwell, M.D. and **R. W. Waggoner, M.D.,** of Ann Arbor, published an article entitled "Hypertrophy of the Masseter Muscle," in *Annals of Otology, Rhinology and Laryngology,* 1951.

Ivan F. Duff, M.D., James W. Linman, M.D., and **Roberta Birch,** of Ann Arbor, published an article entitled "The Administration of Heparin," in *Surgery, Gynecology and Obstetrics,* September 1951.

A. L. Brooks, M.D., Medical Director, Fisher Body Division General Motors Corporation, Pontiac, published an article, "An Appraisal of a Urinary Porphyrin Test in Detection of Lead Absorption," in *Industrial Medicine and Surgery,* September, 1951.

William S. Reveno, M.D., of Detroit, has just issued a new book, "711 Medical Maxims," published by Charles C Thomas, Springfield, Illinois. Price $3.75.

Frank H. Bethell. M.D., of Ann Arbor, published an article, "Hematology in Relation to Otolaryngology," in the *Transactions of the American Academy of Ophthalmology and Otolaryngology,* July-August, 1951.

A. C. Furstenberg, M.D., Lauren A. Wood, M.D., John E. Magielski, M.D., and **G. F. McMahon,** of Ann Arbor, published an article, "An Evaluation of Cocaine Anesthesia: The Perpetuation of Equivocal Concepts," in the *Transactions of the American Academy of Ophthalmology and Otolaryngology,* July-August, 1951.

Conrad R. Lam, M.D., of Detroit, published an article, "Commissurotomy in Mitral Stenosis," in the American Medical Association *Archives of Surgery,* September, 1951.

Reed O. Dingman, D.D.S., M.D., and **Wilbur C. Moorman, D.D.S.,** of Ann Arbor, published an article, Meniscectomy in the Treatment of Lesions of the Temporomandibular Joint," in *The Journal of Oral Surgery,* July, 1951.

* * *

The Second International Congress of Rheumatology will be held in Barcelona, Spain. Hugo Freund, M.D., left Detroit, September 14, 1951, to attend and to present a paper on "Some Aspects of Plasma Protein. Changes in Rheumatoid Arthritis." Charles Slocumb, M.D., of Rochester, Minnesota, president of the American Rheumatism Association, and Robert Stecher, M.D., of Cleveland, are also attending as Delegates from the United States.

* * *

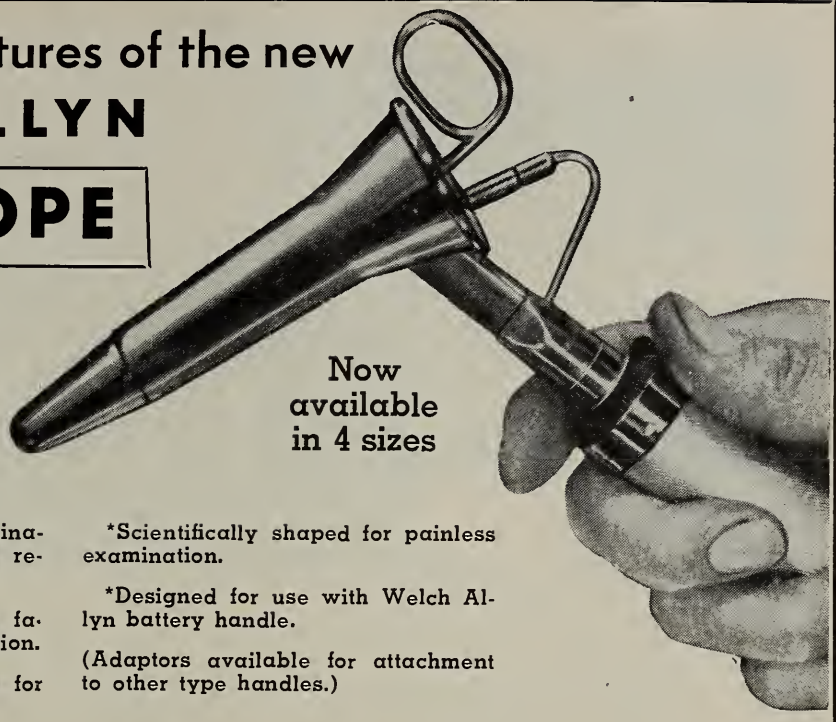
Committee Votes Tax Exemption for Health Costs at Age Sixty-five.—Senate Finance Committee has amended new revenue bill to allow taxpayer over age 65 to deduct medical expense for him and his spouse from his taxable income; under present law, taxpayers may

(Continued on Page 1178)

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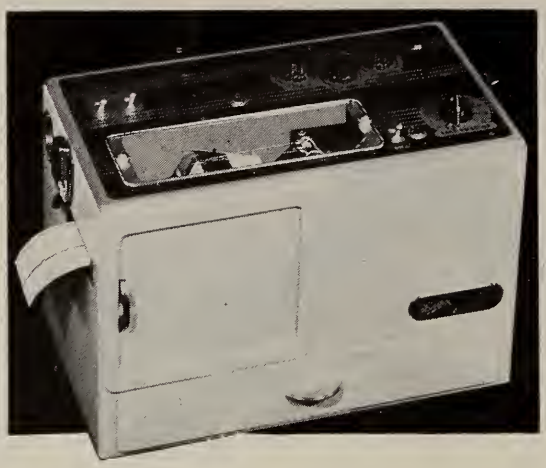
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deduct only that portion of such expense which exceeds five per cent of his taxable income up to $1,250 for each person. Cost of health and accident insurance would be deductible under Senate committee proposal. AMA long has favored full exemption of health and accident premiums from taxable income to stimulate voluntary health insurance. The new provision still has to be acted on by the full Senate and the House.

* * *

New Children's Bureau Chief Sees Possibility of Need for Another EMIC.—Dr. Martha M. Eliot, new chief of the Children's Bureau, foresees the need for a program of Emergency Maternity and Infant Care "as the armed forces grow and families start moving around the country" as in World War II. How extensive the need and how it is to be met are questions still to be answered. Dr. Eliot told a press conference following her swearing in as the fourth Bureau chief and first physician to hold the job. She said she is "very anxious to get the advice and counsel of various groups" on care of servicemen's wives and children. Meanwhile, she has no personal views on the need for another EMIC program at this time, but is awaiting data. (The Senate Health Subcommittee of Labor and Public Welfare Committee has said it will hold hearings sometime this fall on S.1245, an EMIC bill by Senator Humphrey, Democrat of Minnesota.)

Dr. Eliot believes one of the serious problems in the maternity field is the short-term hospitalization of some mothers, sometimes as brief as 24 hours. Under these conditions, "if we insist on delivery in hospitals, then we should provide post-natal care in some facility other than hospitals." She also proposed federal-state studies to determine whether state children's programs are being operated with the best return for money invested.

She listed these nine goals under her administration: (1) proper development of the parent-child relationship, beginning in the physician's office, clinics and nurseries, (2) decreasing death rate of premature babies, (3) assurance that mothers come through maternity period with "abounding health" for themselves and their children, (4) eradication of black market in babies by use of adoption laws and practices, (5) more research to prevent all kinds of congenital defects, (6) stepping up activities for the benefit of children with epilepsy and other chronic conditions, (7) action to assist children who do not see or hear well, (8) strengthening social and health services in homes and communities to prevent juvenile delinquency, (9) eradication of "brutal, degrading and harsh treatment" of young people in training schools.

* * *

Takes Over Dual Jobs at AMA.—Russell F. Staudacher has given up his post as research associate in the AMA Council on Medical Service to take over two other positions in the organization. As of July 1, he assumed the duties of executive secretary of both the Student American Medical Association and the American Medical Education Foundation. Mr. Staudacher came to Chicago headquarters last May from Lansing, where he served as associate public relations counsel for the Michigan State Medical Society for several years.

Say you saw it in the Journal of the Michigan State Medical Society



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225 Sheridan Road **Medical Director** **Phone Winnetka 6-0211**

Medical Economics for October, 1951, has an article about a Michigan activity which is another Michigan First. "Professional Management Pays Three Ways" is a well-written account of a service for medical men which has been a pioneering attempt to apply business and accounting methods to the business as well as the professional side of medicine. Messrs. Henry Black and Allison E. Skaggs are given credit for pioneering in a service to physicians. Their experiences and progress are mentioned, and their friends will appreciate this recognition.

* * *

Cancer Comment department of THE JOURNAL MSMS for May, 1951, was quoted in full in *Current Medical Digest* for August. That was the comment on the last fifteen years when the public has been told the only hope for the cancer patient is periodic examinations, including some questions of a soul-searching nature.

* * *

School Bus Ambulances.—The September number of the *FBI Bulletin* carries a rather complete story of the school bus conversion into an ambulance, an idea proposed by Dr. John R. Rogers of Bellaire, Michigan. This magazine goes to all the law-enforcement officers of the country. Thus another recognition is added to the many which have come to our member from a small town in the northland.

* * *

James Rae, Jr., M.D., Acting Director of the Department of Physical Medicine and Rehabilitation, presented a paper entitled "The Organization of a Department of Physical Medicine and Rehabilitation" at the meeting of the American Congress of Physical Medicine, September 8, 1951, at Denver, Colorado. This paper was discussed by Max K. Newman, M.D., of Detroit.

* * *

Aid American Medical Education Foundation.—The Council urges support of this very constructive program, one of the most important ever undertaken by the medical profession. Your financial contribution to the AMEF will prove that aid to medical education need not come from federal sources and that our medical schools can remain free of governmental domination (socialized education). The physicians of America contributed more than 56% of the initial grant of $1,132,500 made to the 79 medical schools in the United States last month.

You may send your contribution today to the American Medical Education Foundation, 535 North Dearborn St., Chicago 10, Illinois. Your gift (deductible on your income tax report) will be given official recognition in the *Journal of the AMA.*

The AMEF goal this year is $1,000,000. Do your share. Medicine has been good to you.

* * *

Overutilization of Blue Cross-Blue Shield Service.—Charles Gordon Heyd, M.D., President of New York's Blue Cross-Blue Shield, recently wrote the medical profession of his state, as follows:

"A patient enters a hospital only upon the direction

of the doctor and is discharged from the hospital only on the direction of the doctor. Therefore, the medical profession largely controls the financial status of Associated Hospital Service and United Medical Service.

"Consider these excesses:

(a) Patients admitted to hospitals for diagnostic x-ray and laboratory work-ups by some physicians, even though they know such patients are not entitled to this type of coverage under the Blue Cross Plan.

(b) Needless days spent in the hospital beyond those reasonably required for treatment.

(c) More x-ray and laboratory examinations than are necessary for treatment.

"Therefore, I call upon you and the physicians of our community to protect our Blue Cross affiliate, Associated Hospital Service of New York, and our own Blue Shield Plan, United Medical Service, against these abuses.

"A voluntary prepayment hospital plan and a voluntary prepayment medical plan are the only remaining bulwarks in our society against compulsory health insurance. Your future—as a physician with freedom of choice—is in your hands."

MSMS President C. E. Umphrey, M.D., wrote a similar letter on this important subject to all Michigan physicians on February 21, 1951.

* * *

Questions Medicine's Right in Field of Refraction.—The publication, *The Southern Optometrist,* has come up with a new wrinkle in the practice of optometry.

"Optometry renders a superior service in the field of refraction," an editorial states. "Therefore, we believe that medicine has no more professional or moral right in the field of refraction than optometry has in the field of medicine. We believe the time has arisen for optometry to step out of a defensive position into an offensive position and remain so until the field of non-pathological eye care is relinquished by medicine and assumed in its full scope by optometry. Our public relations department should educate the public that refracting, prescribing and fitting glasses are not any part of medicine and, therefore, occupy no important position in medical education. For his professional self-respect and for the benefit of the public who receives superior service from the optometrist, the medical man should retire from the field of refraction."

* * *

The Health Insurance Council, made up of nine trade associations in the life and casualty fields, in its 1950 report should set socialized medicine supporters back on their heels.

The report shows that at least half of the nation's population at the end of last year was covered by one type or other of voluntary protection against the economic hazards of sickness and accident.

All forms of voluntary health protection scored tremendous gains in 1950 to set new records.

Hospital expense protection, which covers the largest number of people, was extended to 76,961,000 persons at the close of 1950. This total was 17 per cent greater than the figure of 66,044,000 just a year before.

Growing public appreciation of the advantages of voluntary health protection can be seen in the fact the



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number of people protected against hospital costs has more than doubled since the end of World War II.

Great strides also were made by surgical expense and medical expense coverages in 1950. Protection against surgical expense was provided to 54,477,000 persons at the end of last year as compared with 41,143,000 a year earlier, an increase of 32 per cent. A year-to-year gain of 28 per cent was recorded by medical expense protection which covered 21,589,000 persons in 1950 and 16,862,000 in 1949.

* * *

"Gold Medal Doctors" Program Goes on Air.—The AMA Bureau of Health Education has just released to state and county medical societies a series of electrical transcriptions entitled "Gold Medal Doctors."

There are fourteen programs in the series, each program devoted to the biography of one of the fourteen recipients of the AMA Distinguished Service Medal.

With the exception of four, all are living doctors and the use of their biographies for broadcasting to the public during their lifetime represents a unique departure from traditional medical practice.

The purpose of broadcasting biographies of living physicians is to demonstrate to the American people that medical history is not confined to the past, but that the monumental discoveries of such pioneers as Harvey, Pasteur and Osler can be, and are being, matched by the contributions of such moderns as Hektoen, Minot, Ewing and many others.

The biographies cover such prominent men as: Matas, Herrick, Jackson, Ewing, Hektoen, Joslin, Dock, Minot, Carlson, Christian, Abt, Harris, Graham and Whipple.

The transcriptions are available to county medical societies or with their approval to health departments and voluntary agencies on application to the Bureau of Health Education at AMA headquarters. In the states of Pennsylvania, Tennessee, Texas, New Jersey, Florida, Oregon, Washington and Louisiana, and the territories of Alaska and Hawaii, platters are available from the state or territorial medical society.

* * *

Revisions in MCCC Fees.—The Michigan Crippled Children Commission has acknowledged recommendations made by the MSMS Council by revising two procedures governing payment of physicians and surgeons fees. As of July 1, 1951 (a) "The fee allowed for a surgical procedure shall include ten (10) days' aftercare"—not "thirty (30) days' aftercare," as in the past; (b) "In cases of operations performed concurrently or within fifteen (15) days of the original operation, the fees for the multiple procedures will be the greater or greatest fee plus 50% of the scheduled fee for the other procedures"—not "twenty (20) per cent," as in the past.

In order to eliminate all future misunderstandings (and the possible loss of fees due doctors of medicine), the following suggestion has received the approval of officers of the Michigan Hospital Association and of the Michigan Crippled Children Commission: that the Commission supply hospitals with an extra copy of MCCC Form No. 56 (Hospital Entrance Report) so the



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hospital may present a copy to the attending physician either before or immediately after the service is rendered. This form will give the doctor all pertinent information, including the patient's insurance coverage.

Such a procedure, made possible through the cooperation of the hospitals and the Michigan Crippled Children Commission, will assure the attending physician(s) of prompt receipt of fees, if billed within sixty (60) days after patient's discharge from hospital.

* * *



G.P. Editor to be Speaker.— Walter Alvarez, M.D., whose name for years has been linked to the Mayo Clinic and who is now editor of *G.P.*, the official publication of the American Academy of General Practice, will be the guest speaker at the fifth annual series of postgraduate lectures given by the Michigan group of this organization. The lectures and demonstrations will be held at Henry Ford Hospital on Wednesday, November 7, and Thursday, November 8.

Dr. Alvarez has always been outstanding in his ability to present his subject in an interesting and entertaining way. Many of us remember his homely but very instructive talks on such subjects as "Gravy on the Vest" which was his way of portraying the immaculate executive who started slipping due to multiple small cerebral hemorrhages. It is this knack of handling a subject in a way in which it is indelibly impressed on the memory which has made him one of the most outstanding medical speakers of the country.

The remainder of the program will be under the able guidance of Frank J. Sladen, M.D., Physician in Chief of Henry Ford Hospital, who will deliver a memorial lecture on a medical subject in honor of Roy D. McClure, M.D., former chief surgeon who is now deceased.

Clarke M. McColl, M.D., is acting as chairman of arrangements, and Harry Davidson, M.D., as program chairman. A very instructive two days is planned to help keep the man in the wide field of general practice abreast of the times.

* * *

"Sources of Motion Pictures on Health" has been prepared by the Committee on Medical Motion Pictures of the American Medical Association. This new mimeographed list includes nine pages of addresses of the major loan and rental libraries, the state health departments' film libraries and references to printed lists and catalogs. Copies are available from the Committee on Medical Motion Pictures, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

* * *

A. J. Baker, M.D., Grand Rapids, and **Wilfrid Haughey, M.D.,** Battle Creek, were elected to Associate Fellowship at the Annual Session of the American Medical Association held in June, 1951, at Atlantic City.

Congratulations, Drs. Baker and Haughey!

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The American College of Chest Physicians will hold its Interim Session at the Ambassador Hotel, Los Angeles, December 2-3, 1951. For program and full information write the College at 500 N. Dearborn St., Chicago 10, Ill.

* * *

The Michigan Society for Crippled Children and Adults, Inc., held its twenty-eighth convention at the Hayes Hotel, Jackson, November 1-2-3, under the Presidency of Emmet Richards of Alpena.

* * *

MSMS President C. E. Umphrey, M.D., Detroit, was guest speaker at the American Association of Physicians and Surgeons Annual Session in Indianapolis, October 4-5-6. His subject was: "Who Gains From the Voluntary Way and Who Loses From the Compulsory Way?"

* * *

E. A. Oakes, M.D., of Manistee, was elected President of the Advisory Council to the Board of Registration of Nurses at its meeting in Lansing on August 16.

* * *

Medical Authors

C. D. Benson, M.D., and **John J. Coury, M.D.**, of Detroit, are authors of an original article on "Congenital Intrinsic Obstruction of the Stomach and Duodenum in the Newborn," which was published in *Archives of Surgery,* June, 1951.

* * *

Meyer O. Cantor, M.D., Detroit, is author of an original article on "Swallowed Intestinal Decompression Tubes," which was published in the *American Journal of Digestive Diseases,* August, 1951.

* * *

William S. Reveno, M.D., and **Herbert Rosenbaum, M.D.**, are the authors of an article, "Treatment of Acute Thyroiditis with Antithyroid Drugs," which appeared in the *New England Journal of Medicine,* September 6, 1951.

* * *

American Academy of General Practice of Wayne County has the following officers for the current year: Karl L. Swift, M.D., President; John H. Schlemer, M.D., Vice President, and Howard C. Rees, M.D., Treasurer.

* * *

JMSMS Editor Wilfrid Haughey, M.D., Battle Creek, addressed the Bay City Lions Club on September 19 on "Early Development of Blue Cross-Blue Shield."

* * *

Parke, Davis & Co., Detroit, announced recently that it is sponsoring a unique series of dramatic oil paintings depicting highlights in the history of pharmacy. The eighty-five-year-old firm presented a set of framed prints to the American Pharmaceutical Association at its recent convention. The paintings are the work of Robert A. Thom, a young Detroit artist.

* * *

Joseph W. Christie, M.D., who recently moved to Newport in Leelanau County, was received with high enthusiasm by the "natives" of his community and large area. A full-page announcement in the Leelanau

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Enterprise-Tribune (August 23, 1951) stated "Congratulations to Dr. Joseph W. Christie in the opening of his Northport Emergency Hospital."

In addition, an editorial and a news feature, containing photograph of Dr. Christie with leading citizens of Northport, was run in this issue of the Leelanau newspaper. Indicative of the way the citizens of Northport have taken Dr. Christie "to their bosoms" is the fact that they show their appreciation by giving Dr. Christie a purse containing more than $200 in cash to be used for the purchase of additional equipment in his hospital, which was filled with flowers for his open house on Sunday, August 26. Over 500 persons visited the hospital to wish Dr. Christie well—proof that the public receives the "old family doctor" with open arms, to use the phrase of Dr. Christie.

* * *

Selection of Michigan's Foremost Family Physician.—The following technique to select the doctor of medicine to receive this annual award has been approved by the MSMS Council:

1. Notification to all county medical societies (with forms) early in January, with stipulation of May 15 as a deadline for nominations.

2. Consideration by The Council of all nominations, with the selection of three names to be submitted to the House of Delegates.

3. Selection of Michigan's Foremost Family Physician by vote at the first meeting of Annual Session of the House of Delegates in September, to facilitate appearance of the selected physician before the House of Delegates.

4. Scroll to awardee to be presented during Michigan Clinical Institute (March, in Detroit).

* * *

"A Doctor For You" is the title of a new timely and well-illustrated booklet prepared by the AMA and now available free in any number of copies to MSMS members. This booklet should be in your waiting room, in sufficient numbers to supply your patients with complimentary copies. SEND YOUR NAME, ADDRESS, CITY, STATE AND NUMBER OF COPIES DESIRED TO PUBLIC RELATIONS DEPARTMENT, AMA, 535 NORTH DEARBORN STREET, CHICAGO 10, ILLINOIS.

Michigan has not kept pace with the rest of the nation in pushing down tuberculosis death rates. Records place Michigan fourteenth among the states in 1940 and twenty-fourth in 1950.

Examination of Michigan records reveals heavily populated Wayne County lagging far behind the rest of the state in reduction of TB deaths. With a fraction over 38 per cent of the state's population in both 1940 and 1950, this area had 56 per cent of the state's TB deaths in 1940 and 67 per cent in 1950!

The TB death rate for Michigan outside of Wayne County was reduced from 23.7 to 10.5 in these ten years—a decline of 56 per cent; the rate for Wayne County was reduced from 48.1 to 35.1—a decline of only 27 per cent.

MICHIGAN TUBERCULOSIS ASSOCIATION

MSMS Secretary L. Fernald Foster, M.D., Bay City, Vice Speaker of the House of Delegates, J. E. Livesay, M.D., Flint, Executive Director Wm. J. Burns, Lansing, and Public Relations Counsel H. W. Brenneman, Lansing, addressed the Livingston County Medical Society at its monthly meeting of September 4 in Howell.

Dr. Livesay's subject was "Watching the Council and its Executive Committee Work."

Mr. Burns spoke on "Association Influences in Medical Progress."

Mr. Brenneman told of the public relations work of the past year.

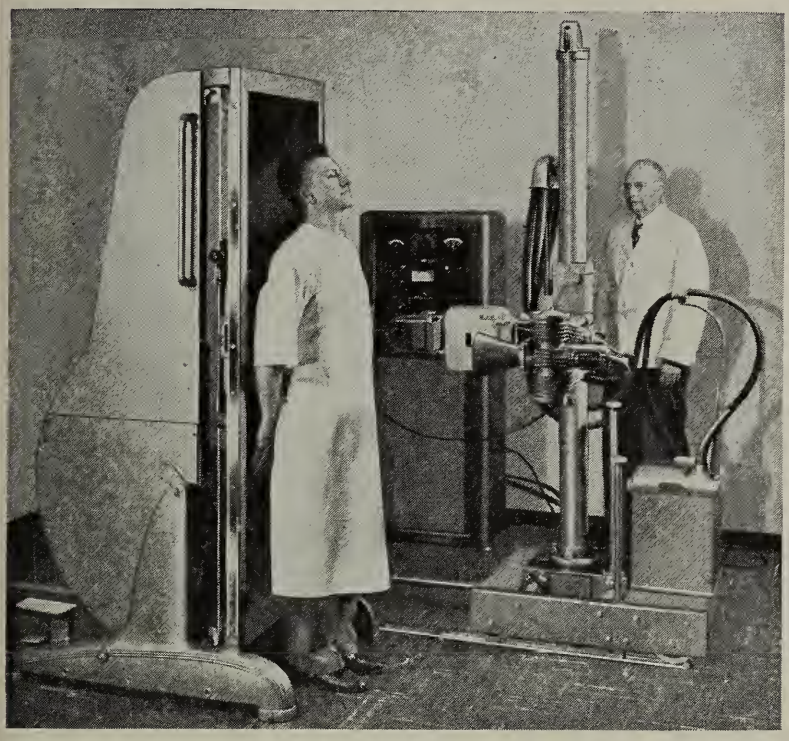
Dr. Foster outlined the "Formula For Freedom" of the Michigan State Medical Society.

* * *

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Surgical Anatomy and Clinical Surgery, two weeks, starting October 22, November 19.
Surgery of Colon and Rectum, one week, starting October 15, November 26.
Esophageal Surgery, one week, starting October 15.
Thoracic Surgery, one week, starting October 8.
Gallbladder Surgery, ten hours, starting October 22.
Fractures and Traumatic Surgery, two weeks, starting October 8.

GYNECOLOGY—Intensive Course, two weeks, starting October 22.
Vaginal Approach to Pelvic Surgery, one week, starting November 5.

OBSTETRICS—Intensive Course, two weeks, starting November 5.

MEDICINE—Gastroenterology, two weeks, starting October 15.
Electrocardiography and Heart Disease, two weeks, starting October 22.

DERMATOLOGY—Intensive Course, two weeks, starting October 15.

UROLOGY—Intensive Course, two weeks, starting October 8.
Ten-day Practical Course in Cystoscopy every two weeks.

ROENTGENOLOGY—Diagnostic and Lecture Course, two weeks, starting November 5.

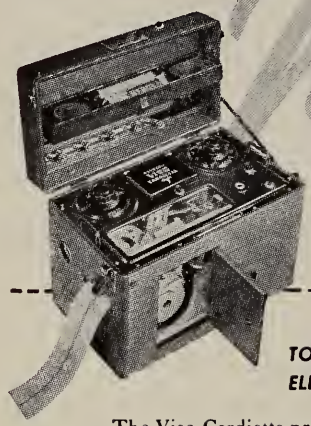
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Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

A TEXTBOOK OF MEDICINE. Edited by Russell L. Cecil, M.D., Sc.D., Professor of Clinical Medicine Emeritus, Cornell University, New York; Robert F. Loeb, M.D., Bard Professor of Medicine, Columbia University, New York. Associate Editors: Alexander B. Gutman, M.D., Professor of Medicine, Columbia University, New York; Walsh McDermott, M.D., Associate Professor of Medicine, Cornell University, New York; Harold G. Wolff, M.D., Associate Professor of Medicine (Neurology), Cornell University. Eighth edition. Illustrated. Philadelphia: W. B. Saunders Co., 1951. Price $12.00.

Any book published under the guiding hand of the senior author is most certain to be an excellent one. This present one is no exception, and in some respects the general quality has been greatly enhanced. This, no doubt, has resulted from adding to the personnel of the editorial staff.

In this one volume, those diseases which comprise Internal Medicine, have been presented by contributors who are recognized authorities in their respective subjects. The physiologic, biochemical and phychologic aspects of each disease has been presented as a part of the total picture of the specific disease rather than in a separate section of the book. This makes the text doubly valuable to students and practitioners of Medicine.

Twenty subjects not in the previous editions have been added to the text. In addition, eighty-two new treatises have been prepared on subjects previously included. The illustrations are of their usual high quality and the general format is such as to make the reading easy and pleasant. This new edition is certainly one we all should have in our library to serve as the latest reference work.

G.W.S.

CLINICAL TROPICAL MEDICINE. By R. B. H. Gradwohl, M.D., Editor-in-Chief, Louis Benitez Soto, M.D., Oscar Felsenfeld, M.D., Editors. With 473 illustrations and 6 color plates. St. Louis: C. V. Mosby Co., 1951. Price $22.50.

This textbook of seventy-three chapters is the result of the collaboration of fifty-seven authors, each of whom has had personal clinical experience with the diseases with which their writings are concerned. As such, it is not a compilation of literature and findings of a variety of experts, but rather experiences of what has come out of their daily contact with the diseases in question. In view of the number of people from temperate zones that have been transported to tropical areas during World War II and the present conflict in Korea, and of their return to our midst, the diseases ensuant thereto are an important phase in each of our lives. This treatise is admirably constructed to be a textbook and a reference work together and should be available in our Medical libraries.

The format is good. The type is large and the composition of the chapters is such as to make for easy



reading. The illustrations are good and the color plates, although only six in number, are of the highest quality. The completeness of the coverage of the individual diseases is very apparent. As an example, for Malaria, there is a chapter on "Plasmodia of Man and Animals," one on "Malaria" which deals with the pathological, physiological, clinical and therapeutic aspects of the disease, and one on the "Malaria Carrying Mosquitoes and Their Control." The other diseases are similarly considered.

This is a large book of nearly 1600 pages and it may not be desired by large numbers of doctors for their personal libraries, but it is of such value that it should be available for ready reference. It is completely current and as such can be highly recommended.

G.W.S.

CLINICAL PEDIATRIC UROLOGY. By Meredith Campbell, M.S., M.D., F.A.C.S. Professor of Urology. New York University Post-Graduate Medical School; Visiting Urologist, Bellevue and University Hospitals, New York. With a section on Nephritis and Allied Diseases in Infancy and Childhood by Elvira Goettsch, A.B., M.D., Associate Professor of Pediatrics, University of Southern California School of Medicine, and Assistant Medical Director of The Children's Hospital Society of Los Angeles, and John D. Lyttle, A.B., M.D., Late Professor of Pediatrics, University of Southern California School of Medicine, and Medical Director of The Children's Hospital Society of Los Angeles Philadelphia: W. B. Saunders Co., 1951.

While this book is of use particularly to the urologist, it contains much of interest to the pediatrician. Indeed, some sections, such as those on Enuresis and Nephritis, are primarily "pediatric literature." The section on Extrophy is especially well written. The chapter on General Considerations in Pediatric Urologic Surgery is excellent.

H. F. B.

SEROLOGY WITH LIPID ANTIGEN WITH SPECIAL REFERENCE TO KAHN AND UNIVERSAL REACTIONS. By Reuben L. Kahn, M.S., D.Sc., Associate Professor in Department of Dermatology and Syphilology, University of Michigan Medical School; Chief of Serology Laboratory and of Serologic Consultation Service, University Hospital; Special Consultant, U. S. Public Health Service; Consultant in Serology, U. S. Naval Medical School. Baltimore: The Williams & Wilkins Co., 1950. Price $6.00.

This is an excellent book by an outstanding authority. It not only takes up the rather live and interesting subject of lipid antigen but includes general observations on the Kahn test and allied serological procedures. It is strongly recommended to all whose interests are in any way serological.

A.H.H.

The ODYSSEY OF MODERN DRUG RESEARCH. By Robert Burlingham, Kalamazoo, Michigan: The Upjohn Company, 1951.

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EATING PROBLEMS OF CHILDREN. EATING PATTERNS OF CHILDREN. A Guide for Parents and a Guide for Doctors and Nurses. New York: National Association for Mental Health, 1951.

The National Association for Mental Health, 1790 Broadway, New York, has published two pamphlets of the above titles, sixteen pages with stiff paper cover, which may be obtained for $.15, or rates in quantities.

ANTIBIOTICS AND CHEMOTHERAPY. Vol. 1, No. 1. The Washington Institute of Medicine.

This is a new journal devoted to experimental and clinical studies on antibiotics, hormones, and chemotherapeutics. Published twelve times a year, price $10. Three Michigan men are on the editorial board; Glen C. Bond, M.D., Kalamazoo, Elwood A. Sharp, M.D., Detroit, and E. Gifford Upjohn, M.D., of Kalamazoo. There is no advertising except on the second, third and fourth cover pages. The first number carries fifteen papers.

IMMUNOLOGY. By Noble Peirce Sherwood, Ph.D., M.D., F.A.C.P., Professor of Bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Third edition. Illustrated. St. Louis: The C. V. Mosby Company, 1951. Price $8.00.

This is a new edition of a text and source book that during the last fifteen years has become a standard work on immunology. The bibliography is excellent, and the dispassionate appraisal of controversial subjects is refreshing and well presented. The portion dealing with allergy is excellent. Always recommended. A.A.H.

HOSPITAL STAFF AND OFFICE MANUAL. By T. M. Larkowski, M.D., F.A.C.S., Professor of Clinical Surgery, Stritch School of Medicine, Loyola University, Chicago, Illinois, and A. R. Rosanova, R.Ph., M.D. Clinical Instructor, University of Illinois Medical School, Chicago, Illinois. Great Neck, New York: Romaine Pierson Publishers, Inc., 1951. Price $4.95.

This pocket size book with flexible binding covers routine hospital techniques, laboratory procedures, x-ray procedures, and short outlines of surgical procedures. It is a handy review of medical and diagnostic practices,

giving in outline the important diagnostic methods in many special fields. Most attention is given to short outlines of treatment. A handy reference book.

CLINICAL LABORATORY METHODS. By W. E. Bray, B.A., M.D., Professor of Clinical Pathology, University of Virginia, Director of Clinical Laboratories, University of Virginia Hospital. With 119 text illustrations and 18 color plates. Fourth edition. St. Louis: C. V. Mosby Co., 1951. Price $7.25.

This book in successive editions has gradually evolved from a small compact, pocket edition to a full-sized work on laboratory methods. In this evolution the compendium has lost some of its charm and convenient size but none of its excellence. It is now just another book on laboratory methods with a terse and point clinical correlation and explanation. One wonders whether some of the material could not be deleted by reason of its limited usefulness and the original synopsis style retained.

A.A.H.

711 MEDICAL MAXIMS. By William S. Reveno, M.D., Assistant Professor of Clinical Medicine, Wayne University Medical College, Attending Physician, Harper Hospital, Consulting Physician, Detroit Receiving and Highland Park General Hospitals, Detroit, Michigan. With Forewords by Frederick A. Coller, M.D., and William J. Kerr, M.D., Springfield, Ill., Charles C Thomas, 1951. Price $3.75.

Dr. William S. Reveno who is one of Michigan's outstanding internists, for many years has been giving us Medical Maxims gleaned from his experience in the sick room, in the hospital and in teaching. These maxims have appeared in almost every number of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY for about ten years, and also in every number of the *Detroit Medical News* for approximately the same amount of time. The maxims are short and well worded observations upon some specific fact of medical knowledge and interest.

Recently, when we failed to have some of these maxims in one number of THE JOURNAL, the Editor had a letter from one of our past presidents saying that he missed the small paragraphs, that he hoped they would never be discontinued, and that he always read and appreciated them.

We know the tremendous amount of energy needed to formulate all these conclusions and observations and we have been amazed during the years at the continuing good work.

Now Doctor Reveno has assembled 711 of these maxims in a book. This book is a work of art. Book lovers used to insist on clipping the pages of their choice books; they will have that opportunity in this very choice book. The material is presented under the headings: Infections; Respiratory Tract; Circulatory System; Digestive Tract; Genito-urinary Tract; Nerves, Bones, Muscles, Joints; Blood; Metabolism and The Endocrines, and Miscellaneous.

If one is interested in any topic, he will find it in the index which occupies one-third of the book.

We congratulate Doctor Reveno and we hope every member who is interested in the science and practice of medicine will buy one of these books. He will be well repaid.

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CHRONIC ULCERATIVE COLITIS IN VETERANS

(Continued from Page 1136)

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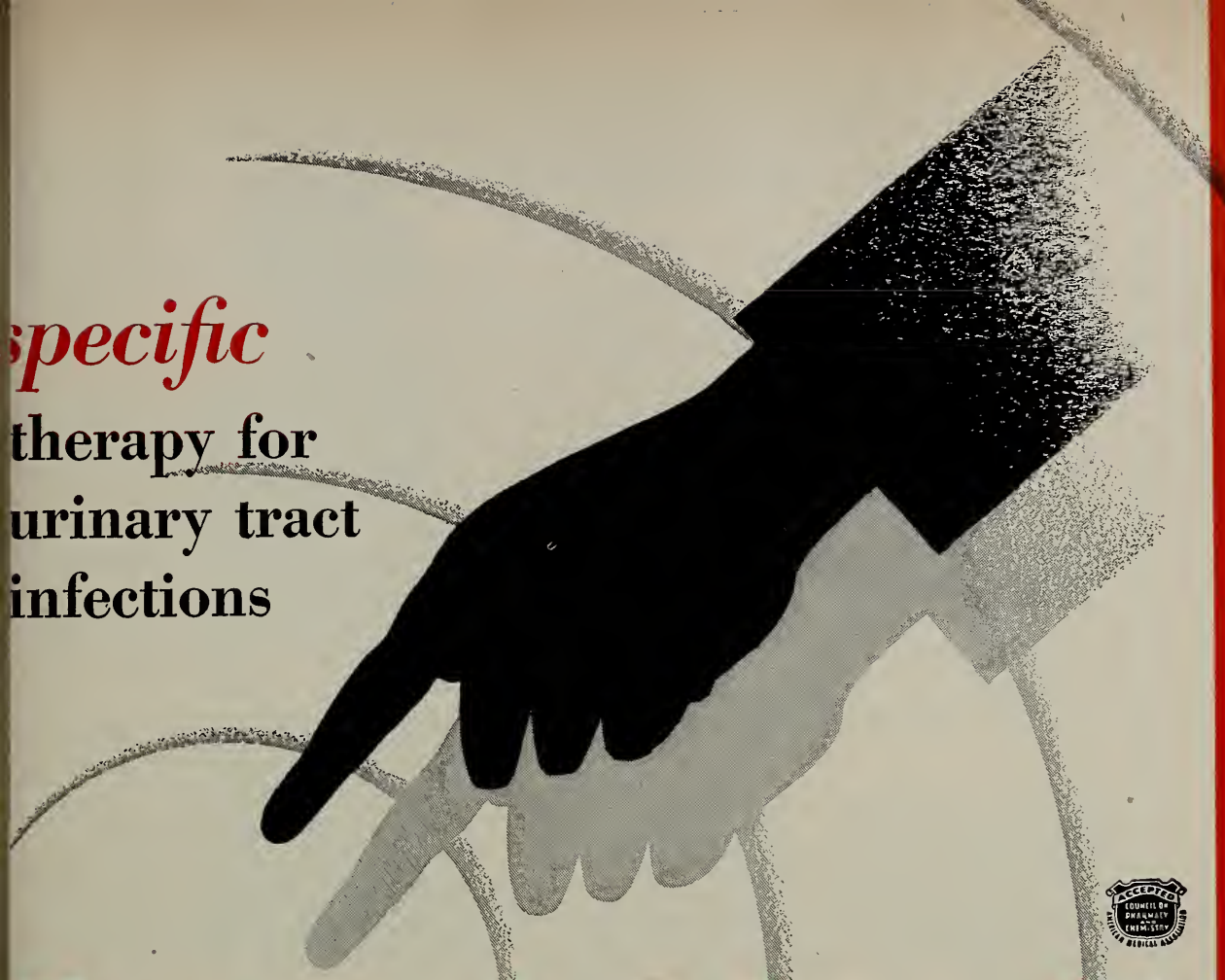
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MEMBERS OF 82ND CONGRESS MISS FEW "RECORD VOTES"

A survey of Congressional voting for the first six months of this year shows that although this session is setting no records in passing legislation, *members are missing fewer roll calls than they did last session.* A few of the details, based on "record" votes, where names are called out: The average Senator cast his vote 91.8 per cent of the time, as against 87.9 per cent last year; the average Representative, 89.7 per cent this year, 84 per cent in 1950. Republicans have better voting records than Democrats, 93.1 per cent as against 90.5 per cent in the Senate and 91 as against 88.4 in the House. Four Democratic Senators and 11 Republican Senators managed to get themselves recorded on all roll calls; nine Democrats and 22 Republicans succeeded in the House.



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Bill Burns

You should know the guy!

A worker.—Each morning neatly ordered piles of correlated correspondence, memos and manuscripts, reminders and reports, stack his big desk fresh from the morning mail. From the all-embracing maw of his daily tickler file come the myriad of problems and projects that make Michigan medicine tick. Through the day this mountain of organizational minutiae melts before the brilliance of his energetic attack flowing smoothly into the telephone, or via the ediphone, to doctor, lawyer, merchant and chief.

The staccato voice halts only to meet the query of the puzzled staff member or to greet the business visitor. The interruption is met graciously—but quickly! He loves people but time is of the essence.

A thinker—As the day ends and the newly deserted offices lose their hum of purposeful activity, Bill is still at his desk.

Looking at him in semi-profile against the fading window light you see a gentleman of dignity; an intellectual with a sensitive, highly strung, creative mind; a determined man dedicated to the cause of medicine.

THE BURNS PHILOSOPHY:

"No Executive Director of a medical society can assume that he accomplishes anything. He doesn't. He just reminds and stimulates those for whom he works to do the job they're supposed to do . . . I can take no credit. I just happened to be around when we had outstanding leadership."

Comment: Burns "reminders" are best typified by the famous red penciled notes that fly from his fingers. Strong men have been known to quail at the sight of one of these among their morning mail—for they know that there's work to be done. Burns is a catalyst for medical organizational thought. He gets a very quiet satisfaction from the accomplishments and sees that all credit goes to the M.D.s who do the work.

You speak, and the spell is broken like a stone splashing into a quiet pool. His energy bursts forth in gigantic laughter at the humorous anecdote or in cutting innuendo at cupidity or stupidity.

Then he takes a vitamin pill, offers one to anyone present, accompanied by a word of advice on healthful living; tips his hat brim to a slightly rakish angle and, with a quick wave of his hand, is off to attend a committee meeting, a dinner, a conference, a party, or heaven knows what. But he's going *places* you can be sure of that. He has never stopped—and he never will.

That's Bill Burns. You should know the guy.

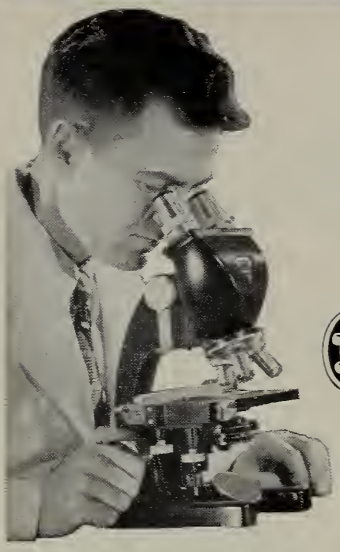
William John Burns was born to Catherine and William L. Burns in Toledo, Ohio, on November 2, 1896. His schooling climaxed in an LLB. degree and he was licensed to practice law, first in Ohio and then in Michigan. In 1925 the budding attorney attracted the attention of some key doctors of the Toledo Academy of Medicine. With some misgivings he accepted the invitation of that organization to become its first Executive Secretary. Thus in 1925, he found himself in a bare room of the Toledo Academy of Medicine building sans desk, chair or stenographer and with the dubious honor of being one of three executive secretaries of county medical societies then "in captivity."

Five years later, the burgeoning county medical society to the north, looking with envious eyes at the smoothly growing program in Toledo sent its President, A. S. Brunk, M.D. (Past President and presently Treasurer of the Michigan State Medical Society), to hire the man responsible. Burns, now an eligible young bachelor, quietly moved to Detroit as the Wayne County Medical Society Executive Secretary and melded into that organization's office in the Maccabees Building in January, 1930.

With seeming ease, Burns handled the daily affairs of the now expanding program of the WCMS. In 1932 the Board of Trustees of that Society placed on his neatly tailored shoulders the task of moving into and managing its huge new home—the former David Whitney House. Just like that! The red-haired Irishman had suddenly become a restauranteur and a building manager in addition to his routine duties which now included the editing of a journal, lecturing at Wayne University, managing an office force, executing the wishes of a multitude of committees, meeting the daily organizational problems of some 2,000 M.D.s and fending off the approaches of many an at-

(Continued on Page 1208)

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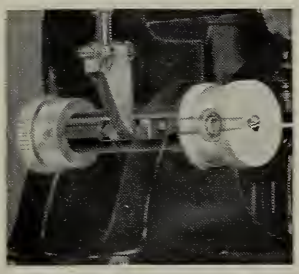
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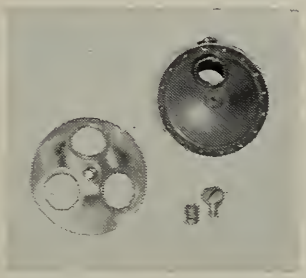
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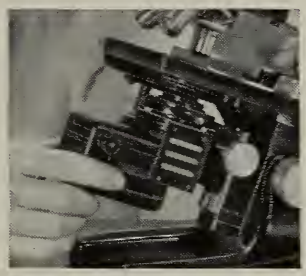
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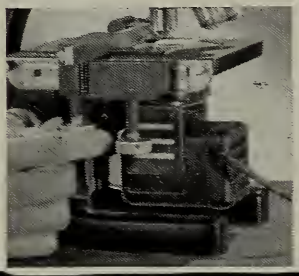


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(Continued from Page 1206)

tractive wench who knew a good man when she saw one.

Came the depression. Burns did a balance act on the top of a precarious budget that is still the marvel of the officers whom he served under at that time. To this day the thought of running a restaurant and a building with the attendant housekeeping problems is a thought which brings genuine pain to the soul of Bill Burns and lays a pall over his blithe spirit.

The Executive Secretaryship of the Michigan State Medical Society, without the wrappings of personnel and office space, was the birthday gift to Burns on his 39th anniversary. He started a new life in Lansing—having succumbed to the demands of society sufficiently to woo and win the beauteous Josephine Murphy of Detroit. Burns' friends sometimes intimate that Bill at the time felt this to be something of a personal sacrifice on his part since it was bound to take some of his time away from the work to which he had previously married himself. Later, the sacrifice "paid off" in the birth of the charming Mary Margaret—"Missy." Today Burns is outrageously proud of his grand family.

For the fourth time, he started over in a new location. With a few files from the former secretary, the doors opened at the now famous 2020 Olds Tower. Here, Burns settled down on his medical organization ideas like a white leghorn brood hen on a flock of eggs. He stayed there sixteen years, expanding the MSMS staff from two to twenty-four and hatching all of those ideas only to find that in addition to his own idea-dispensing proclivities some unfeeling characters had been slipping in some additional ones for him to hatch. So, nodding his head to the inevitable, he moved his nest on August 1, 1951, to new expanded quarters at 606 Townsend where he continues to hatch ideas, feed them, and send them on their way to serve his masters—the M.D.s and their patients.

As politicians are wont to say, "Let's look at the record."

Organizations

Michigan Medical Service:	Burns served as the first secretary, participating in the night-owl formation meetings from 1940-1942.
Michigan Health Council:	Burns was first secretary assisting in the creation of this body in 1944.
Conference of Presidents and other Officers of State Medical Societies:	Burns assisted organization by engineering original meeting and setting up Constitution.
Michigan Clinical Institute:	A Burns idea.
Michigan Foundation for Medical and Health Education:	Again, Burns was first and only secretary.
American Medical Golfing Association:	For twenty years Burns has served as secretary and has managed all tournaments.
Michigan Heart Association:	Acting as secretary of the formative meetings, Burns assisted in making an idea become a reality.

MSMS—Internal Progress

The Michigan State Medical Society has become a great organization. The work and worry that has made it so has been shared by hundreds of committees and scores of officers. The Council of the MSMS has had seventy-three different members in sixteen years giving a constant change of leadership, but progress has continued steadily and is a continuing testimonial to organizational perfection. Working side by side with Executive Director Burns has been his mentor, guide, consultant and friend, L. Fernald Foster, M.D., Bay City, Secretary. They have never had a disagreement in the sixteen years of their close working relationship. Both dedicated to medicine, they have carried out instructions, urged, stimulated and fought for medicine, always making the details mesh into a hard-driving, fast-moving organizational operation.

Increasing in membership from 3,410 in 1935 to 5,196 in 1951, the record of progress is a list of triumphs. The JOURNAL, beautified by distinctive covers and modern type and layout, expanded 50 per cent in size from 1092 pages in 1935 to 1574 in 1951. The technical and scientific

(Continued on Page 1210)

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases.

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recognizes the remarkable inhibiting effect of aureomycin on a great number of organisms, especially those commonly found in the gastrointestinal tract. It is of great value in the preparation of patients for surgery of the bowel or biliary tract, as well as in the medical management of infections in these areas. Aureomycin is also highly effective in intestinal amebiasis. Aureomycin is peculiarly adapted to the treatment of many biliary and hepatic infections, because of the high concentrations it attains in the bile and because of its protection of the hepatic parenchyma from bacterial necrosis. Aureomycin is indispensable in gastroenterology.

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(Continued from Page 1208)

exhibit at the MSMS Annual Session and the Clinical Institute became an example to the nation. The seventeen exhibits in 1935 changed "miraculously" to 143 in 1951—an increase of 840 per cent. Pioneering in new techniques these medical exhibitions have placed Burns at the pinnacle of exhibit managers. Recently named chairman of the annual conference of medical exhibit managers, Medical Exhibitors Association executives, he is also advisor to the American Academy of General Practice exhibition; is director of the U. S. Chapter, International College of Surgeons exhibit.

The ebb and flow of national trends have swirled into Michigan. The pressures created have been met with a flexible strategy. Sometimes the subject is channeled to local levels; sometimes a strong defense is laid down; often, foreseeing in advance the need, a program is built; always there is the drive to anticipate progress, foresee trouble —that's Burns' business.

The specter of socialized medicine did not surprise Michigan. It was ready with Michigan Medical Service-Michigan Hospital Service, and when troubles have arisen MSMS has always come to the assistance of these great organizations. Years before it was established, the MSMS urged an AMA public relations office in Washington, D. C., for it had seen the value of close observance to legislative enactment in Lansing. As government grew, the contacts with government agencies increased so that least damage would be done by government controls and most good could be wrung from what might have become dangerous domination. The Uniform Fee Schedule for Governmental Agencies and the Home Town plan for care of Veterans were established. An effective program of resistance met the socialization attempt of the EMIC program. Revisions in state laws in Venereal Disease Control, the Basic Science Law, Crippled Children, et cetera, kept just a step ahead of the times.

When the great surge of stimulated criticism flowed from its socialistic sources, Michigan was ready with a full blown public relations program that is still serving as a state and national model. The general practice movement met the-family-doctor-is-gone attack. The socializers found a closely knit organization with all medical activities flowing through the elected representatives of the doctors of medicine of Michigan—The Council MSMS, and a membership alerted through State Society nights and lectures on medical economics. Standing by them were their friends, the Woman's Auxiliary, the Medical Assistants and the voluntary health associations—friends who had been earned by hearty co-operation and sympathetic help.

A pride in their medical organization with an unselfish esprit de corps among the "rugged independent M.D.s" surprised the attackers. That esprit de corps was no accident. It grew from pride in serving the people both individually and as an organization. The Hillsdale Cancer Detection Plan, the Rheumatic Fever Control program, the Rural Health Conference movement were but a few of the voluntary public health measures that supplemented a close liaison with local and state public health agencies.

Far from forgotten, the major emphasis of the MSMS has been on postgraduate education of doctors of medicine. The Postgraduate Fellowship Certification program, the Assemblies at the Annual Session, the encouragement of specialty societies and ancillary groups (seventeen met with MSMS in Grand Rapids in September, 1951) all combined with the medical schools of Michigan to give this state national leadership in medical education. And Burns was there, too—helping with arrangements for space and speakers, cataloguing work accomplished, stimulating attendance.

And as Michigan attracted good doctors, it attracted those who feed on the gullibility of people—the cultists. Repeatedly and consistently these substandard healers have met strong resistance as they have sought new permissions with which to victimize the public. And Burns was there like a medical Kilroy.

Today, the medical profession of Michigan is aware of its responsibilities to society. A great effort, made in the Good Citizenship Campaign of 1950, has grown into the Formula for Freedom program which calls for dedication of time and thought heretofore unequaled by any organization.

The Doctors will meet the challenge—or Burns will die trying.



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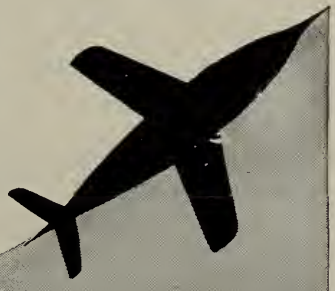
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HIGHLIGHTS OF SEPTEMBER SESSION OF THE COUNCIL

September 23 and 28, 1951

Eighty-four items were considered by The Council at its September meeting in Grand Rapids. Chief in importance were:

- Monthly financial reports were presented, studied and approved. Bills payable were inspected and payment was authorized.
- Robert C. Paige, M.D., New York, Secretary of the National Doctors Committee for Improved Federal Medical Services, was recommended as a speaker to the MSMS House of Delegates, with the matter of invitation being placed in the hands of the Speaker and Vice Speaker.



THE COUNCIL, MICHIGAN STATE MEDICAL SOCIETY, 1951-52

(Front row, left to right) A. S. Brunk, M.D., Detroit, Treasurer; L. W. Hull, M.D., Detroit Council Vice Chairman; Otto O. Beck, M.D., Birmingham, President; William Bromme, M.D., Detroit, Council Chairman; R. J. Hubbell, M.D., Kalamazoo, President-Elect; L. Fernald Foster, M.D., Bay City, Secretary; and C. E. Umphrey, M.D., Detroit, Immediate Past President.

(Standing, left to right) J. D. Miller, M.D., Grand Rapids; W. D. Barrett, M.D., Detroit; B. M. Harris, M.D., Ypsilanti; R. H. Baker, M.D., Pontiac, Speaker; Ralph W. Shook, M.D., Kalamazoo; D. B. Wiley, M.D., Utica; Wilfrid Haughey, M.D., Battle Creek, Editor; F. H. Drummond, M.D., Kawkawlin; C. A. Paukstis, M.D., Ludington; W. S. Jones, M.D., Menominee; G. B. Saltonstall, M.D., Charlevoix; A. H. Miller, M.D., Gladstone; R. S. Breakey, M.D., Lansing; H. H. Hiscock, M.D., Flint; L. C. Harvie, M.D., Saginaw; W. B. Harm, M.D., Detroit; all are Councilors unless otherwise indicated.

(Absent on MSMS Business) G. W. Slagle, M.D., Battle Creek, and H. B. Zemmer, M.D., Lapeer, Councilors.

- Warren R. Mullen, President of the Student American Medical Association (and senior at the University of Michigan Medical School) was issued an invitation to attend the 1951 MSMS Annual Session; in future, the Presidents of the Student AMA at the University of Michigan and at Wayne University are to be invited routinely to Annual Sessions of MSMS.
- 606 Townsend. An appraisal on September 21, 1951, brought forth the information that this property has "a sound value of $49,000 on the building after allowing due credit for depreciation." The large room on the first floor of the new MSMS building was designated the "Past Presidents Room" by The Council; photographs of all MSMS Past Presidents, of identical size, will be hung in positions of honor in this room.
- American Medical Education Foundation. Each Michigan county medical society is to be requested to appoint one member to further this movement in the State of Michigan.

(Continued on Page 1214)



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HIGHLIGHTS OF SEPTEMBER SESSION OF THE COUNCIL

(Continued from Page 1212)

- Report on presentation of Scrolls of Appreciation in Detroit on September 14 to C. E. Wilson, President of General Motors, to Max R. Burnell, M.D., and to C. D. Selby, M.D., present and past medical directors of this corporation, was given by President C. E. Umphrey, M.D.

- A liaison committee of the MSMS with the four veterans organizations of Michigan was authorized, upon recommendation of President-Elect Otto O. Beck, M.D., Birmingham.

- A. D. Allen, M.D., Bay City, and J. R. Rodger, M.D., Bellaire, were nominated to the Governor to succeed themselves on the Michigan Advisory Hospital Council for terms expiring December, 1952.

- A. Hazen Price, M.D., Detroit, was nominated to succeed himself as MSMS representative to the State Advisory Committee for Practical Nurse Education of the Michigan Department of Public Instruction.

- William H. Gordon, M.D., Detroit, was authorized to attend the AMA Civil Defense Meeting in Chicago as MSMS representative.

- The four suggestions being studied by the Michigan State Board of Registration in Medicine for revision of rules governing admission to examination of foreign graduates were presented, discussed and referred to the County Societies Committee.

- The Council authorized the MSMS imprint on the proposed "Heart Bulletin" (Michigan edition) of the American Heart Association.

- The Editor reported covers and feature content of JMSMS Numbers for the balance of 1951 and for all of 1952; also that the MSMS Mental Hygiene Committee is gathering five papers from JMSMS to be bound as a reprint for distribution.

- Legal Counsel J. Joseph Herbert reported on the Grand View Hospital case at Ironwood, Michigan: a civil suit to enjoin the Trustees of the Hospital from barring healers who are not staff members.

  Mr. Herbert also rendered an opinion re authority to hire consultants.

- A report on rheumatic fever control in Michigan's Upper Peninsula was presented by Frank Van Schoick, M.D., Jackson, Chairman of the MSMS Rheumatic Fever Control Committee.

- The new MSMS film "To Save Your Life" is complete, as reported by Public Relations Counsel H. W. Brenneman, and will have its premiere before the MSMS House of Delegates in Grand Rapids on September 24. Thereafter the film will be distributed in Michigan through schools, TV, service clubs, PTA, colleges, film catalogues, medical societies, women's auxiliary and women's clubs, medical assistants groups, etc., and also will be made available to groups outside Michigan under a distribution plan being developed.

  "To Your Health" and "Lucky Junior"—the previous MSMS films—have shown in Michigan theaters to over 694,000 persons (paid admissions) as well as over TV stations in Michigan and in other parts of the country, bringing the total viewing audience of the pictures to well over five million persons in the United States.

  Other reports were made on the two MSMS TV programs "It's Your Life" and "Medical Mail Box"; on exhibits and publicity; and on the "Formula for Freedom" program which will be a premiere presentation to the MSMS House of Delegates on September 24 with the aid of Dr. Alfred C. Haake of Park Ridge, Illinois, The Very Reverend Wm. T. Reeves, Jr., Grand Rapids, and Mr. John B. Martin, Michigan's Auditor General.

- The following Committee reports were given consideration: Public Relations of August 19; Maternal Health of August 23; Rheumatic Fever of September 5; Geriatrics of September 6.

(Continued on Page 1216)





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HIGHLIGHTS OF SEPTEMBER SESSION OF THE COUNCIL

(Continued from Page 1214)

- The reports of the three Standing Committees of The Council (Finance Committee, County Societies Committee, and Publication Committee) were presented. The County Societies Committee reported on an apparent breach of ethics in one of the northerly county medical societies which led to the following action by The Council:

  "The Council disapproves of publicity of any type by any member which is not in keeping with the dignity of the profession."

  The Council appointed a committee to compile a model code covering recommended practices in reference to physicians' signs, newspaper, mail and radio announcements, and other forms of advertising of any type.
- The Supplemental Report of The Council was drafted and approved, for submission to the MSMS House of Delegates on September 24.
- Elections: William Bromme, M.D., of Detroit, was chosen as Chairman; L. W. Hull, M.D., of Detroit, was elected as Vice Chairman; D. B. Wiley, M.D., Utica, was made Chairman of the County Societies Committee; F. H. Drummond, M.D., Kawkawlin, was re-elected as Chairman of the Publication Committee; W. S. Jones, M.D., Menominee, was re-elected as Chairman of the Finance Committee.
- The Annual County Secretaries-Public Relations Conference was set for Sunday, January 27, at the Book-Cadillac Hotel, Detroit; the Annual Session of The Council will be held the three preceding days at the same place.
- Matters of mutual interest were discussed with State Health Commissioner A. E. Heustis, M.D., Lansing.
- Members of 1951-52 MSMS Committees were presented by President Otto O. Beck, M.D., Birmingham, and approved by The Council.

HOSPITAL ACCREDITATION

The American Hospital Association at its St. Louis convention of September, 1951, approved participation in a joint program of hospital accreditation with three other organizations. The program calls for an 18-member Joint Commission on Hospital Accreditation—six from the American Hospital Association, six from American Medical Association, three from the American College of Surgeons, and three from the American College of Physicians. Financing will be in the same proportions. The eighteen members will elect a chairman who will be a Doctor of Medicine preferably with hospital administration experience.

MISREPRESENTATION

Addressing the American Dental Association, President Truman complained bitterly that his program for national health—or socialized medicine—had been "widely and completely misrepresented." He then went on to say that he was "startled" when he learned that in World War II, Selective Service rejections ran 34 per cent.

In dredging up these draft statistics to prove that the national health is below par and can be raised only by applying socialistic methods, Mr. Truman is himself guilty of gross misrepresentation.

As an index to the nation's health standards, all authorities have long since discarded the Selective Service figures as not pertinent.

They "are practically without value," says the Brookings Institution in its scholarly analysis of compulsory health insurance. They do not take into account the millions of men who volunteered for service, presumably the most healthy segment of American society. They do not take into account the fact that rejection for service does not necessarily imply ill-health, or that many rejections were for nonmedical reasons.

"These nonmedical defects are educational and

(Continued on Page 1218)

More people smoke **Camels** than any other cigarette!



MISREPRESENTATION

(Continued from Page 1216)

social and have no relation to the health of the registrant," the Brookings report points out.

President Truman certainly does his cause no good when, complaining of misrepresentation, he is himself guilty of the most flagrant kind.—Leading editorial in *Detroit Free Press,* October 18, 1951

FUTURE DATES FOR YOU

The **Michigan Clinical Institute** is scheduled for Detroit six years in advance, as follows:

1952	Detroit	March 12-14
1953	Detroit	March 11-13
1954	Detroit	March 10-12
1955	Detroit	March 9-11
1956	Detroit	March 8-10
1957	Detroit	March 13-15

The annual sessions of the **Michigan State Medical Society** are scheduled seven years in advance, as follows:

1952	Detroit	Sept, 29-Oct. 1
1953	Grand Rapids	September 23-25
1954	Detroit	Sept. 29-Oct. 1
1955	Grand Rapids	September 21-23
1956	Detroit	Week of Sept. 24
1957	Grand Rapids	September 20-22
1958	Detroit	Week of Sept. 22

The annual **County Secretaries-Public Relations Conference** will be held at the Book-Cadillac Hotel, Detroit, on Sunday, January 27, 1952, following the three-day Annual Session of the MSMS Council.

SURVEYS ON MEDICAL CARE

Several surveys covering various aspects of medical care and illness have been proposed or are in the process of being conducted. They are significant in the light of current discussions and legislative proposals dealing with health insurance. Among these are:

1. A national health survey of chronic illness and disability to be conducted by the U. S. Public Health Service. The Senate Subcommittee on Health has just completed public hearings on the advisability of doing the survey in terms of need, availability of information, and cost.

2. A survey of the financial aspects of the nation's hospitals by the American Hospital Association. The survey, under the direction of Graham C. Davis, Director of the division of hospitals of the W. K. Kellogg Foundation, will seek to determine the adequacy of existing hospital facilities, whether related health services meet the needs of the population, what steps should be taken to strengthen present services, and the best methods of financing these services. Several foundations have granted a total of $500,000 for this survey.

3. A survey of coverage of older people under Blue Cross Plans being carried on by the Blue Cross Commission.

4. A survey to determine the methods by which Americans pay for private medical and hospital care being conducted by Columbia University under a grant of $92,000 from the Health Information Foundation.

5. A survey on the economic aspects of prolonged (more than four weeks) non-occupational illness among employed workers by the Research Council for Economic Security. Pilot studies are nearing completion; the full survey will begin January, 1952.—Research Council on Economic Security, October, 1951.

BUSINESS GROUP VOTES DOWN EWING OLD AGE PLAN

The National Federation of Independent Business, which claims a membership of 136,000, has advised the President and Federal Security Administrator Ewing that 84 per cent of its members oppose proposals for free medical and hospital care for persons aged 65 and over.

In identical messages to both men, Federation President C. Wilson Harder branded the proposals as "merely continuing effort by certain circles in the Administration to foist full-scale socialized medicine on our nation."

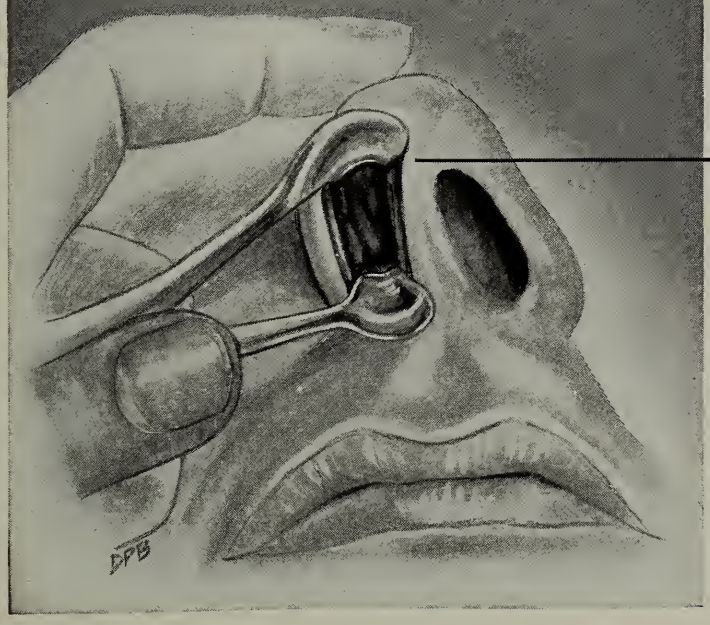
Mr. Harder, who is located at the federation's home office in Burlingame, Calif., said that contrary to arguments by proponents of the medical care plan, the "social security fund" does not contain money to finance the program. He said the fund "contains little more than notes from the U. S. Treasury which must be redeemed by our working citizens, farmers, business and labor, out of certainly rising taxes in later years since the old-age segment of our population is expected to increase materially over coming years."

SOCIALISM IS THE REAL ISSUE

Freedom-loving Americans are fighting State Socialism, not merely socialized medicine, socialized housing, socialized farming, and socialized education. Of course, it is necessary to keep up a running battle against various Socialist bills in Congress, but these successive skirmishes year after year require a great deal of time. If a Socialist bill dies in committee or is voted down in Congress, a similar bill is introduced in the next Congress. In all these skirmishes we are not striking at basic issues. We do not kill the roots of Socialism, we merely lop off a few branches.

(Continued on Page 1220)

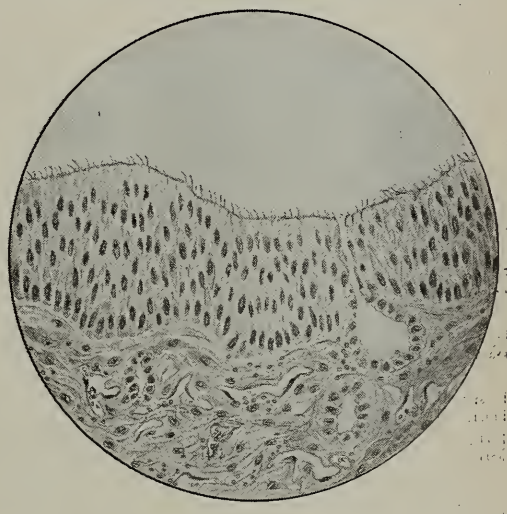
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(Continued from Page 1218)

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

1951	
Nov. 27-29	Institute on Alcoholism.....Detroit
Dec. 4-7	AMA Clinical Session.....Los Angeles
1952	
March 12-14	MICHIGAN CLINICAL INSTITUTE .....Detroit
March 14	Michigan Heart Day (part of M.C.I.) Detroit
Spring	MSMS Postgraduate Extramural Courses ..... State-wide
April 3	Jackson County Medical Society's Clinic Day ..... Jackson
April 9	Genesee County Medical Society's Cancer Day .....Flint
April	Highland Park Physicians Club Clinic Highland Park
April 24-25	International College of Surgeons (Regional Meeting for Seven States) Detroit
May 1	Ingham County Medical Society's Clinic Day ..... Lansing
May 7	Third Michigan Industrial Health Day .....Flint
May 14	Wayne University Medical Alumni Clinic Day and Reunion.....Detroit
June 9-13	AMA Annual Session.....Chicago
July	Annual Coller-Penberthy Medical Surgical Conference .....Traverse City
August	Third Annual Clinic, Central Michigan Committee, ACS Michigan Committee on Trauma, plus Michigan National Guard Medical Personnel, and Michigan Society of North Central Counties .....Grayling
Sept. 24-26	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION Detroit
Autumn	MSMS Postgraduate Extramural Courses ..... State-wide

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

S. 2171, VOLUNTARY HEALTH INSURANCE

By Mr. Hill, of Alabama, and Mr. Aiken, of Vermont, September 24. *To authorize grants to enable the States to survey, co-ordinate, supplement, and strengthen their existing health resources so that hospital and medical care may be obtained by all persons.* Referred to the Committee on Labor and Public Welfare.

Comment: Similar to S. 1456, 81st Congress, by Senator Hill. Bill seeks to accomplish two objectives: (1) Makes available federal funds to states on a formula ranging between 33⅓ per cent and 75 per cent of the total to be spent by the state in establishing voluntary hospital and medical care insurance programs for sub-income persons, with subscription rates based upon ability to pay; and (2) makes available federal funds on a fifty-fifty matching basis so that states might, (a) survey needs for necessary diagnostic facilities, (b) make a survey of mental, tuberculosis and chronic disease facilities, (c) make a survey of areas of the state where there is a shortage of physicians, and (d) make a survey of enrollment in voluntary prepayment health insurance plans—and finance the cost of making plans to correct the foregoing conditions.

The term *"hospital and medical care"* includes surgical, obstetrical and medical services furnished in a hospital and hospital services incident thereto *not in excess of 60 days in any year,* and also includes diagnostic and outpatient clinic services furnished in a hospital or diagnostic clinic. The term *"hospital"* includes any hospital with an average patient stay of less than 30 days or any diagnostic clinic which conforms to state regulations.

States would be required to submit plans in conformity with certain conditions set forth in the bill and would be required to follow general regulations issued by the Surgeon General, Public Health Service (Federal Security Agency), which meet with the approval of the Federal Hospital and Medical Care Council. Once such regulations are promulgated the council has only advisory powers. Generally, state plans must provide for an acceptable method of determining the eligibility of persons who cannot afford to pay all or any part of voluntary subscription charges—general standards for participation of voluntary prepayment plans, both nonprofit and others —the manner in which the state agency will stimulate enrolling the population in plans—the general methods of administration of the health plans.

Eligible states would designate a single state agency and could use the agency already selected under the Hospital Survey and Construction Act. They would establish a state hospital and medical care council of eleven members, which includes persons from the fields of hospital and medical care, at least two physicians, two hospital administrators, and two persons experienced in administration of voluntary prepayment plans. States must agree to make reports to the Surgeon General as required by him and to make their records accessible for inspection. Safeguards must be provided to restrict the disclosure of information concerning recipients. The state must issue "service cards" to persons whose subscriptions are subsidized so that there is no distinction or discrimination in the type of hospital or medical treatment which they receive. Service cards would be issued prior to the need for hospitalization or medical service. States would also create a Hospital and Medical Care Authority within each of the regions of the state. These authorities would include representatives of pertinent

(Continued on Page 1222)



24 hour anticoagulant action

A single, deep, subcutaneous injection of 30,000 to 40,000 U.S.P. units (approximately 300 to 400 mg.) of Depo*-Heparin "will give a lengthened coagulation time of 2 to 4 times normal for about 24 hours."[1]

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1. *Smiles, William J.: Long-Acting Heparin Preparation: A Useful Adjunct in Anticoagulant Therapy. U. S. Armed Forces Med. J., Vol. II., No. 1 (Jan.) 1951*

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S. 2171 VOLUNTARY HEALTH INSURANCE

(Continued from Page 1220)

groups, including medical associations, hospital associations and hospital prepayment associations.

The Federal Hospital and Medical Care Council would be made up of ten members appointed by the Administrator of the Federal Security Agency: four outstanding in fields pertaining to hospital and medical care, of which two shall be doctors of medicine and two hospital administrators; two persons experienced in the administration of voluntary prepayment plans; and four to represent consumers. Each would hold office for a term of five years. The Council would appoint special advisory and technical committees.

The bill carries two specific safeguards to eliminate federal control. The first prohibits the Surgeon General from exercising authority with respect to the selection, tenure of office, or compensation of any individual employed by the state agency. The second is as follows: "Except as otherwise specifically provided, nothing in this title shall be construed as conferring upon any Federal officer or employe the right to exercise any supervision or control over the administration, personnel, maintenance, or operation of any hospital utilized for furnishing hospital and medical care pursuant to the provisions of this title."

States denied federal funds because the Surgeon General has ruled their plans are not in compliance, may appeal to the Hospital and Medical Care Council, which may overrule the Surgeon General. No other appeal is provided.

Some will recall this bill from the 81st Congress when its sponsors were, in addition to Senators Hill and Aiken, Senators O'Conor, Withers and Morse. It was one of the bills under discussion at a public hearing held May 25, 1949, when on behalf of the AMA the following witnesses appeared: Doctors Sensenich, Bauer and Goin.

AEC OFFERS EIGHT FELLOWSHIPS IN INDUSTRIAL MEDICINE

The U. S. Atomic Energy Commission will offer eight fellowships in industrial medicine for the 1952-53 academic year, continuing a special program begun two years ago. The program is administered for the AEC by the Atomic Energy Project of the School of Medicine and Dentistry, University of Rochester, Rochester, New York. Fellows are selected by a committee headed by Dr. A. G. Kammer, Head of the Department of Occupational Health, University of Pittsburgh Graduate School of Public Health, and Medical Director of the Carbide and Carbon Chemicals Company.

The purpose of the special fellowship program is to provide advanced training and on-the-job experience to men and women physicians in the field of industrial medicine, particularly in relation to the atomic energy industry.

The need for qualified industrial physicians throughout atomic energy installation is critical, and at the end of the two-year training period fellows may find employment in the program. However, there will be no commitment on the part of AEC either to continue the applicant's training beyond the Fellowship year, or to provide the applicant with employment upon completing training. On the other hand, the applicant assumes no obligation to take the on-the-job year of training or to seek employment with the AEC or its contractors.

Awards are for one year's academic training at approved institutions. After completion of this training, fellows will be eligible to apply for a second year's in-plant training at one of the major installations of the AEC. The stipend for the first year's training will be $3600, plus tuition and laboratory fees, and for the second, or in-plant year, $5000.

The fellowships are open to citizens of the U. S. who hold an M.D. degree from an approved medical school and who have had at least one year of internship. All fellows must be investigated by the FBI and approved by the AEC before entering on their fellowships.

Applications for the 1952-53 fellowships should be submitted by January 1, 1952, to: A.E.C. Fellowships in Industrial Medicine, Atomic Energy Project, University of Rochester, School of Medicine and Dentistry, Rochester, New York. Attention: Dr. H. A. Blair.

PREPAID HOSPITAL CARE PLANS SEEN THREATENED BY ABUSES

Abuse of prepaid medical and hospital care plans is making those plans cost more if not actually threatening their existence, according to Andrew C. Pattullo, director of the W. K. Kellogg Foundation's hospital division.

Mr. Pattullo said a study shows that people who belong to prepaid plans not only make greater use of hospital facilities, but that they often make use of needed hospital beds when treatment could be given outside the hospital.

Mr. Pattullo considers it a "desirable trend" that the financial barrier to hospital care has been removed through prepaid plans, but he said there is apprehension as to the future of such plans if abuses continue.

Most plans provide for hospitalization but not for diagnostic services which are provided in physicians' offices or at home. So there has been a tendency to use hospitalization as a means of getting diagnostic attention paid for under the scope of such prepaid plans, Mr. Pattullo notes.

"Perhaps the tendency indicates the need for prepaid diagnostic plans, too, but their cost would be so high that the idea is not feasible," Mr. Pattullo said.

A study revealed that in a given period, 100 to 110 people in each 1,000 not covered by insurance made use of the hospital, while the use of hospitals increased 110 to 150 persons per 1,000 in the group which was covered.

The use of hospitalization where it is not absolutely necessary sends the cost of hospitalization plans soaring upwards, Mr. Pattullo pointed out. "Hospitalization rates one year are determined by the previous year's cost experiences," he noted.

While correction of this trend is a responsibility of both professional people and patients, the balance of control lies in the hands of the professional people, it was noted. Mr. Pattullo made that point clear during a talk to the

(Continued on Page 1301)

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Each fluid ounce contains: Ethylmorphine Hcl., 1/4 gr.; Tincture Euphorbia Pilulifera, 120 min.; Syrup Wild Lettuce, 120 min.; Tincture Cocillana, 40 min.; Syrup Squill, 24 min.; Cascarin, 8 gr.; Menthol, 8/100 gr.; Alcohol, 9%.

PECTOL

Note: Narcotic Registry Number Required

Each fluid ounce contains: Codeine Sulfate, 1/2 gr.; Chloroform, 2 min.; Acid Phosphoric Dilute, 16 min.; Ipecac, 1 gr.; Squill, 2 gr.; Alcohol, 6%.

RUNICOL No. 1

Note: Narcotic Registry Number Required

Each fluid ounce contains: Codeine Sulfate, 1 gr.; Chloroform, 2 min.; Potassium Guiacol Sulfonate, 8 gr.; Antimony and Potassium Tartrate, 1/12 gr.; White Pine Bark, 16 gr.; Wild Cherry Bark, 16 gr.; Alcohol, 3 1/2%.

SPECIAL SYRUP No. 1

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Cancer Comment

A PROPOSED EXPERIMENT IN CANCER EDUCATION

In the minds of some people, lay cancer education is overemphasized. It is said that more people are being frightened than helped regarding the menace of cancer and its control. Unfortunately some physicians give voice to these criticisms. As has been pointed out in previous Cancer Comments, the fears and phobias of one or a very few persons is taken as representative of the general population. While it may be true that the wrong approach to lay cancer education has been made in certain cases, in general, the program has been beneficial.

Those with experience in cancer education know that education of *the right kind* is not fear-producing. Interest displayed in the subject by an intelligent person is not a sign of phobia but rather a sign of common sense. There is abundant evidence that cancer education is saving lives every day. That it has not yet reached the desired end is noted by the steadily rising number of deaths reported annually. The effect of education on the masses is not yet evident; it is still measured by individual experiences. Not until all groups and agencies concerned with health and medical problems put their shoulders to the educational wheel and strive continuously and intelligently for the common end will the goal of universal cancer education be reached.

For the past fifteen years cancer education has been conducted on the general principle of reaching those lay individuals and groups who could be interested in receiving the information. Much of the educational effort is still directed to the masses rather than to groups with specific interests. A start has been made in a few communities with high schools and women's groups. Due to a lack of science teachers trained in the knowledge of cancer necessary to teaching the subject, a general high school education program must wait until more high school teachers know the fundamentals of the nature, causes, and prevention of cancer. Teacher-training institutions must be able and willing to provide their students with this training to enable them to give adequate classroom instruction.

There are also groups within the medical and allied professions that might well be included in specialized educational programs. Bearing in mind that the general public looks to physicians, dentists, nurses, public health personnel and their ancillary professions for answers to their health and medical problems, it behooves all these groups to keep abreast of current knowledge on these matters. There are always members of every profession who lag in their interest and information about their professional problems and responsibilities while they continue to offer their services as equal to their better informed colleagues. This observation applies to all fields of medical practice and of course includes cancer.

Physicians, dentists and nurses may feel that their knowledge of cancer is adequate to the service they are called on to render the cancer patient. What is often overlooked is the important fact that several professional disciplines are concerned with the care of practically every cancer patient. Omission or failure of any of these services may deny the patient the benefits to which he is entitled.

To correct this undesirable situation and to make all professions having anything to do with cancer in their communities fully aware of latest information, community resources and plans for its control and of the value of a co-operative service, a program sponsored by and for the benefit of these professional groups would seem to be in order. In addition to the local medical profession, dentists, private, hospital and public health nurses, student nurses, medical and dental assistants, such as receptionists, laboratory technicians, medical social workers and all other specialized groups in the medical and health fields should be fully advised of the latest information about cancer and where they can make a contribution to its control.

It is suggested that such a program as indicated above be organized in some Michigan community. There are adequate resources and leadership available in Michigan institutions, such as the Cancer Control Committee, MSMS, Michigan Department of Health, Michigan Dental Society and the nursing and medical social service organizations for

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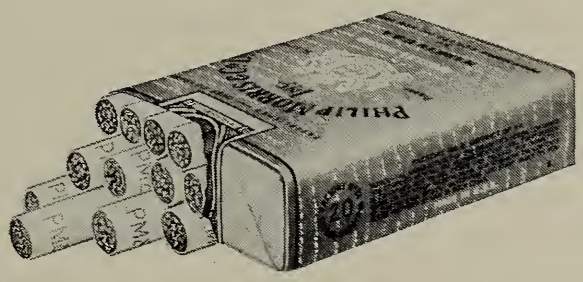
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Editorial Comment

DOCTORS CLEAN HOUSE

The Michigan State Medical Society is giving evidence that it meant business in its proposal to wage open war on its minority of fee gougers.

In the *Detroit Medical News,* an official publication, the Wayne County Medical Society reports action of the state House of Delegates which met early this month and denounced excessive charges, concluding:

". . . and directed all county societies to bring such unprofessional practices to the attention of the mediation committees for prompt action."

The warning is couched in dignified, restrained language as befits the profession. But the threat is there.

The local publication goes even further in showing its intent. It reports on state medical societies which are urging doctors to itemize their bills, letting the patient know exactly for what he is paying.

It is apparent that the leaders of the medical profession in Michigan and about 99 per cent of reputable physicians are determined by every means possible to control the few doctors who offend against professional standards by fee gouging.

The offenders are being given adequate warning. The next step is positive action, and the medics give every indication they are prepared to take it when necessary.—*Detroit Times,* October 20, 1951.

WHY VETERANS LACK DOCTORS

Dr. Joel T. Boone, medical director of the Veterans Administration, made the statement in Chicago that the country is going to have to "allocate" physicians, dentists, and nurses if the VA is unable to sign up more of them for its hospitals. "Allocation" is a polite word for drafting professional people, and, in the case of Dr. Boone's hospitals, drafting them for civilian jobs. Veterans Administration personnel are not in military service.

There is one good reason why Dr. Boone finds it difficult to staff many of his hospitals. Pork barrel artists in the Truman administration and in Congress built many of them, against all advice from the medical profession, in out-of-the-way places where doctors do not want to live and practice.

In 1943, Carl Vinson, the chairman of the House armed services committee, grabbed off a 900-bed naval hospital for Dublin, Ga., in his congressional district, with the provision in the law that the hospital should revert to the Veterans Administration. Dublin, a town of about 8,000 before Rep. Vinson began showering blessings on it, hasn't even passenger train service. Old Tawm Connally, head of the Senate foreign relations committee, did as well for his home town, Marlin, Tex., with a VA hospital that doctors shun.

Dr. Boone is in his present job because Veterans Administrator Carl R. Gray, Jr., fired Boone's predecessor, Dr. Paul B. Magnuson of Chicago. Dr. Magnuson got in bad with the politicians because of his insistence, not always successful, that new VA hospitals should be located in metropolitan areas, where plenty of good physicians are available for part-time service.

The veterans administration renders many useful and necessary services, and a lot more that are uncalled for. There is no reason why it should treat veterans for nonservice connected ailments.

The VA probably has enough staff today to care for veterans whose ailments can be traced to their military service. It hasn't enough to operate a political racket, and the physicians of the country are under no obligation to assist in that racket by accepting assignments to pork barrel hospitals. —*The Chicago Tribune,* October 15, 1951.

CANCER COMMENT

(Continued from Page 1224)

interesting and profitable analysis and evaluation of any community cancer program.

The informed co-operation of these local groups would enable them to more effectively serve their cancer patients. It would also raise the general community level of understanding and appreciation of their cancer problems and of the resources available for their solution. The Cancer Control Committee, MSMS stands ready to assist in any way possible in the development of such a program.

The JOURNAL
of the Michigan State Medical Society
Issued Monthly Under the Direction of the Council
VOLUME 50 NOVEMBER, 1951 NUMBER 11

Calcinosis

Report of Case with Treatment

By Hugo A. Freund, A.B., M.D.
Detroit, Michigan

FROM TIME to time, cases of calcinosis are reported in the literature. Some fall under the classification of calcinosis universalis; others, calcinosis circumscripta. The differentiation of these two forms is made on the basis of the localization of the calcium deposits. In the former, the deposits are chiefly in the cutaneous and subcutaneous tissues; in the latter, the muscles and tendons are principally involved.

After all, calcium deposits in various parts of the body are not unusual. In 1947, Moran[4] reviewed 100 cases of calcinosis. Since that time, at least six have appeared in literature, the last report being that of Plittman and Gendel.[5] This idiopathic type of calcium deposit, usually in symmetrical areas of the body, reveals itself to the patient through a feeling of hard lumps which appear in the fingers, at the elbows, or in the soft tissues of the buttocks; or the presence of these calcified masses is demonstrated by x-ray when in the course of x-ray examinations for other conditions, the masses are seen. Calcific deposits may appear in isolated areas as a deposition of calcium salts in dead, degenerated, or chronically inflamed tissues. Therefore, they are encountered where severe necrosis has taken place, where an infarct has undergone organization, or in the tubercle following caseation. The obstetrician occasionally encounters calcified areas in the placenta. Calcification of the pleura has been reported. In some occupational conditions, repeated trauma of an area may cause a localized calcium deposit. Foreign bodies are sometimes encrusted with calcium salts. All of these conditions have been grouped under the term of dystrophic calcification.

In hyperparathyroidism, a different form of calcification is seen. Because of the hypercalcemia in this condition, the thought has occurred that probably some disturbance in parathyroid metabolism may be present in calcinosis. There is no evidence to support this speculation. The excessive use of irradiated ergosterol, and the prolonged administration of vitamin D have been frequently shown to cause excessive widespread calcium deposits. Another disease involving bone destruction in which abnormal calcium deposits may take place is multiple myeloma. Therefore, conjectures have been made which suggest that abnormal calcium distribution may be ascribed to hormonal, enzyme, and vitamin influences.

The most common form of calcification of course is seen in the vascular system. The presence of plaques in the aorta, peripheral arteries, and in the veins of the extremities needs no further comment.

In the field of rheumatic diseases, the osteoarthritides, compensatory deposits of calcium about some rheumatoid arthritic joints, and the acute soft tissue calcification seen in the shoulder bursa and adjacent to other joints of the body, are of especial interest to those studying and interested in rheumatic diseases. It is therefore a challenge to those interested in these conditions to explore the possibilities for explanations of abnormal calcium deposits.

Report of Case

C. T., an intelligent white man, aged fifty-three, millwright by occupation, was first examined on January 17,

From the Metabolism Ward and Laboratories of Harper Hospital and The Freund Clinic.

Funds for this study were provided by the National Foundation of Rochester, Michigan.

1948, having been referred by Drs. Peabody and Walsh from their orthopedic service at Harper Hospital. Of possible importance in his past history, is the statement that two years previously (1946), he suffered for about one month from "kidney disease." He states that during this period, his hands and feet "puffed up," his urine was "cloudy," and that on diet and medication prescribed by his family physician, the "kidney disease" disappeared. (Confirmation of these statements could not be obtained). It was immediately thereafter that "bumps" appeared on the palms of each hand, on the soles of the feet, along the inner aspect of each buttock, and at the elbows. Stiffness of the hands developed and slowly progressed. The patient was not conscious of any facial stiffness, nor any difficulty in swallowing. The patient was told he had "arthritis," and treated for that supposed condition. The skin over the masses of the right hand began to break down in June, 1946, and a gritty material discharged. The patient says that he would "pick pieces of white material like bone" out of the ulcerated areas. The painfulness of the lumps in the buttocks on sitting down, the inability to close his hands, and the progressive weakness necessitated the patient's giving up work in November, 1946. He had suffered a weight loss of 65 pounds (maximum weight 216 pounds) in eleven months. With partial bed rest and full diet, he regained 10 pounds of weight at the time of his admission to Harper Hospital. There were no other complaints.

Except for the hard masses and the tightness of the skin over both hands and feet, the physical examination revealed no abnormal findings. On the palms of both hands over the heads of the metacarpals at the junction of the second and third digits, and on the ball of the left thumb, non-tender nodules varying in size from 3 mm. to 1 cm were felt. Similar hard masses were palpable in the loose tissues of each buttock. These extended forward to the lower areas of the inguinal folds. Along the intergluteal folds, at each side of the anus, were firm non-tender plaques with irregular edges. Each plaque measured approximately 3 by 6 cm. The skin over the phalanges was taut and shiny, and did not wrinkle easily. The skin of the dorsum of the hands, and to a lesser extent of the feet and face, was tense and seemed to have lost much of its elasticity.

A summary of the complete skeletal x-rays was as follows:

On January 20, 1948, the study revealed extensive calcium deposits in the subcutaneous tissues of the digits of both hands and also subcutaneous tissues about the posterior aspect of both elbow joints and on the plantar aspect for the right foot in the region of the plantar surface attachment to the os calcis. Extensive calcium deposits were seen in the region of the buttocks and about both pubic bones and ischial tuberosities. A study made of patient's chest revealed no abnormality. The lung fields were clear. The heart and aortic shadows were normal. There was no evidence of any calcification in the pericardium or cardiac muscle. Contour and position of both leaves of the diaphragm were normal, and the costophrenic sinuses were clear. Studies of the tables of the skull revealed no abnormality. The sella turcica was normal. Pineal gland showed calcification and occupied a normal position within the calvaria.

Gastrointestinal studies resulted in the following conclusions:

There was no evidence of an organic lesion in any part of the upper gastrointestinal tract. There was no cardiospasm or delay in gastric emptying. There was a very transient pylorospasm observed which was very likely of no clinical significance. The changes in the esophagus and upper part of the small intestine which are sometimes seen in scleroderma were not observed in this individual.

—Dr. Lawrence Reynolds and Associates

The laboratory reports of the blood, urine, Kahn test, basal betabolism, electrocardiogram, hippuric acid liver function test, glucose tolerance, and urea clearance were normal. The sedimentation rate was 69 mm. (Westergren), blood calcium averaged 10.3 mg. per cent, and phosphorus 4.1 mg. per cent. Over a period of one month, fifteen estimations of the acid and the alkaline phosphatases were made. The former varied between 0.82 and 0.54 mg. per cent, and the latter 2.27 and 1.57 mg. per cent. These findings were within the normal range reported by Gutman and Gutman.[3] These, together with metabolic balances, histochemical studies, and electrophoretic determinations, will be reported at a later date.

Biopsy of a nodular mass of the right buttock was done. The pathological report was as follows:

1. Subepidermal fibrosis.
2. Collagenous connective tissue with extensive deposit of calcium. —Drs. P. F. Morse and V. Brekke

Treatment

No consistent therapeutic results have ever been reported with any form of treatment. On the assumption that a parathyroid disturbance might be present, parathyroid hormone has been tried with the intention of liberating calcific deposits, the thought being that a hypercalcemia might result similar to the condition encountered in hyperparathyroidism. Treatment by parathyroidectomy was reported by Bartels and Cattell[1] and by Byron and Michalover.[2] Production of acidosis by a ketogenic diet has been attempted. Vitamins in massive doses have been given!

Purely on the supposition that alpha-tocopherol may have an inhibitory effect on enzyme substance controlling calcium and phosphorus metabolism, or that it may act as a water-soluble phosphate ester, the thought occurred that a clinical trial with vitamin E in the form of alpha-tocopherol phosphate might be tried. This was begun in March, 1948. One hundred milligrams were given three times daily. No other medication or diet was prescribed. The patient was told to report at regular intervals, and to note particularly any change that occurred in the mobility of his hands, the tenderness of the feet and buttocks, and the character of the material extruded from the broken down surfaces of his hand.

He reported in four weeks, stated that he felt generally better, had gained two pounds in weight, and that he could open and shut his hands more freely. There had



Fig. 1. February, 1948



Fig. 2. May, 1950.

been some extrusion of calcium from the second finger on his right hand, but during the past two weeks, spontaneous healing of the ulcerated hand had taken place. On physical examination, no change in the condition of his hands where the calcium deposits could be palpated was apparent. He was told however to continue on the treatment for another month.

Eight weeks after the beginning of the alpha-tocopherol, the patient positively stated that "the lumps were smaller," that he "felt much better," that his "skin felt softer," and that the masses in the buttocks and elbows were "less tender."

Three months after treament was begun, the patient made this statement: "I feel so much better. I feel relieved. I am not stiff or tender as I was. All these hard parts are softer. I am very much improved."

Although some doubt existed prior to this time as to whether improvement was taking place, it could now be definitely stated that something had affected the patient's condition in a favorable manner. Improvement has continued up to the present time. As evidence of the degree of absorption, x-ray pictures of his right hand made in February, 1948, and again in July of 1950, are shown in Figures 1 and 2.

This rapid reversal of the calcinosis suggests that alpha-tocopherol had a favorable effect. Although spontaneous remissions have been reported, the description of complete reversal of the process has not been found in any review of the literature. In none of these reports have x-ray or similar confirmatory evidences been submitted. The association of scleroderma and calcific deposits is reported in some cases. Relief obtained by the use of tocopherol in scleroderma has also been reported in a few cases. It may be argued that tocopherol had a favorable effect upon the scleroderma of this patient, following which absorption of the calcium salts has taken place. Be that as it may, the therapeutic trial of tocopheral has seemed warranted.

Further metabolic balance and histochemical studies are continuing on this patient, the reports of which will be made later.

Summary

A case of calcinosis circumscripta, associated with scleroderma, that has responded favorably to the use of alpha-tocopherol phosphate is reported.

62 Kirby Avenue West

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A complete review of the literature has been made in previous papers and will be reported in a subsequent paper.

Clinical Evaluation of Polythionates in Dermatology

By J. R. Delaney, M.D., and J. J. Mahood, M.D.
Detroit, Michigan

SINCE early times sulfur has enjoyed prominence in the practice of medicine. Although previously considered of therapeutic merit either internally or externally, modern medicine almost exclusively restricts the use of sulfur to topical administration.[6] Dermatologists, in particular, find rather widespread use for sulfur preparations designed for local application.[1,59] Of special significance is the considered value of sulfur in the treatment of acne, seborrhea and fungus infection.

It has been established that elemental sulfur is therapeutically inactive, *per se*. However, it has been shown that oxidation products of sulfur possess therapeutic merit. Under proper conditions sulfur is oxidized, through a series of reactions, to polysulfides and the more complex polythionates (principally pentathionate). The polysulfides have little effect on tissue or pathogenic organisms. On the other hand, the polythionates have been reported to possess germicidal, fungicidal and keratolytic properties.[8] It follows that subsequent to the application of elemental sulfur a reaction must take place in the presence of tissue substances whereby the sulfur is converted to the effective polythionates. The smaller the sulfur particles available to the tissue the easier and more rapid the completion of such chemical changes. This would account for the recent trend to the use of colloidal sulfur with its reactive advantages. Since activity is vested in the polythionates, it would appear that direct application of the latter to affected tissues should offer the greatest potential for therapeutic success.

Investigators have sought for more than a decade to assess the clinical response to aqueous solutions of the polythionates, and to further elaborate on the mode of action of these sulfur compounds.[3,7,8,10] Moller and Pederson[8] carried out studies which demonstrated the germicidal property of polythionic acids. Moller and Lomholt[7] have reported on the effectiveness of polythionate therapy in 175 patients exhibiting skin conditions usually treated with sulfur preparations. Numerous reports have appeared relative to the fungicidal property of these sulfur agents. Chardon[2] concluded that such sulfur compounds are satisfactory drying and exfoliating agents. However, polythionic acid salts are exceptionally unstable in solution, and such instability has militated against their commercial availability. A stabilized aqueous solution of polythionates was developed in Norway which has extended the usefulness of sulfur in this form. This preparation has been widely used there as well as in Sweden, France, Belgium, Holland and England. Recently the product was introduced in this country under the trade name Dermasulf®.* Finnerud and Riddell[4] conducted a clinical evaluation of Dermasulf and have reported favorably on its effectiveness in acne and seborrhea. In view of the reported efficacy of this product, studies were initiated in the Department of Dermatology at Wayne University designed to further estimate its value in dermatological conditions, principally acne vulgaris and seborrheic dermatitis. Additional patients were seen in private practice. It is the purpose of this paper to present the findings of such studies.

Dermasulf has certain physical characteristics considered to be of practical significance. It has neither color nor odor, and possesses the added advantage of leaving no visible residue subsequent to application. It is cosmetically acceptable to patients because of these features. It presents no difficulty of administration and is free of the inherent disadvantages of creams and sticky suspensions. Because of its relatively low surface tension, Dermasulf permits rapid tissue penetration of the active sulfur components. The product is marketed in two strengths, a 5 per cent solution of polythionates (equivalent to 3 per cent elemental sulfur) and a 2.5 per cent solution (equivalent to 1.5 per cent elemental sulfur).

In order to insure individual tolerance to Dermasulf, particularly in patients with light complexions, several patients were tested with the preparation prior to onset of the actual study being reported. It was concluded that the 5 per cent solution was usually well tolerated. Those subjects chosen for inclusion in this study were instructed

From the Department of Dermatology and Syphilology, Wayne University College of Medicine, Detroit, Loren W. Shaffer, M.D., Chairman.

*Dermasulf® furnished through the courtesy of the Carroll Dunham Smith Pharmacal Company, New Brunswick, New Jersey.

to simply apply the liquid medication to the affected areas with their finger tips, morning and evening, being careful to effect even distribution; and cautioned to allow the solution to dry after application. Those with seborrhea of the scalp were advised to apply Dermasulf with an eye dropper every other day, followed by gentle massage.

In the course of this study a total of sixty-four patients received treatment with Dermasulf. They ranged in age from six to sixty years, and the period of treatment varied from as little as two weeks to as much as six months. Treatment was continued as long as progressive improvement was apparent, and was terminated when satisfactory relief had been effected. The essential data on the cases included in the investigation have been incorporated in Table I.

TABLE I. OBSERVATION OF PATIENTS TREATED WITH DERMASULF 5%

Diagnosis	No. of Cases	Age Range	Duration	Duration of Treatment	Reactions*	Results
Acne Vulgaris	25	14-32	3 mo. to 8 years	3-12 weeks	2	Satisfactory.....23 Unsatisfactory.. 2
Acne resacea	2	50-60	Severe 6 mo. to 1 year	6 weeks	0	Satisfactory..... 2
Seborrheic Dermatitis	21	6-55	3 weeks to 10 years	2 weeks to 6 months	1	Satisfactory.....20 Unsatisfactory.. 1
Seborrhea and Acne	10	15-35	1-5 years	3-12 weeks	1	Satisfactory..... 9 Unsatisfactory.. 1
Seborrhea Oleosa	3	15-23	1-8 years	8-12 weeks	0	Satisfactory..... 3
Tinea Versicolor	3	23-27	6-24 mo.	6 weeks	0	Satisfactory..... 1 Unsatisfactory.. 2
TOTAL	64				4	Satisfactory.....58 Unsatisfactory.. 6

*Reactions severe enough to discontinue the Dermasulf ®

Discussion

Dermasulf, 5 per cent strength, elicited a satisfactory response in fifty-eight of the sixty-four cases comprising this study, an effectiveness of 90 per cent. Results were uniformly good in either acne or seborrheic conditions, as well as in those where both conditions existed simultaneously. A response was graded as "satisfactory" when the clinical appearance improved and the subjective symptoms were controlled. A response was considered "unsatisfactory" if reactions severe enough to discontinue treatment occurred or no appreciable clinical change was noted and the subjective symptoms continued.

Therapy of acne was not necessarily restricted to Dermasulf alone. Additional measures included diet and occasionally x-ray therapy. The drying quality of Dermasulf was found to be very valuable in the acne patient. In the patient with extremely oily skin the drying effect was dramatic. This effect was equally notable in the scalp. In those exhibiting seborrheic dermatitis, Dermasulf was not prescribed until the acute eczematoid phase had been controlled by other measures. Adoption of this regime of therapy afforded a better opportunity to observe the effectiveness of Dermasulf under conditions comparable to those in which a topical sulfur preparation might ordinarily be recommended by a physician. When used in this fashion, Dermasulf proved to represent effective treatment.

Reactions were confined to localized irritation (dermatitis venenata). The four patients of this series who were unable to tolerate Dermasulf exhibited acute erythema accompanied by a burning and tingling sensation with considerable aggravation. They reacted in like fashion to Dermasulf 2.5 per cent strength. However, they were also affected thusly with other sulfur preparations, indicating their sensitivity to sulfur in any form. In no instance was the observance of mild erythema regarded as contraindicative to continued Dermasulf application. Similarly, occasional moderate desquamation was not looked upon unfavorably.

Three cases of tinea versicolor were included in this study. In one case with widespread lesions complete clearing occurred after eight weeks of Dermasulf therapy. No recurrence of the condition was in evidence upon examination six months subsequent to treatment. Significant clearing was not observed in the other two individuals. Since there was some doubt as to the regularity of their applications of Dermasulf as suggested, failure in

these two patients must be accepted with reservation.

Summary

Dermasulf, a stabilized aqueous solution of polythionates designed for topical application, has been clinically evaluated in both acne and seborrhea. In a series of sixty-four patients a satisfactory response was observed in fifty-eight of the subjects (90 per cent).

This product constitutes a very satisfactory medicament for use whenever topical sulfur is indicated It possesses certain physical and chemical properties that offer an advantage over sulfur in other forms. Application is effected with ease, and no residual is in evidence once the liquid vehicle has evaporated. Its relatively low surface tension permits rapid penetration to the target tissue by the active sulfur components.

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Cancer detection alone accomplishes nothing. It must be followed by definitive diagnosis and adequate treatment.

* * *

The benefit to cancer patients from an alert follow-up system is well recognized.

* * *

The incidence of cancer of the breast is at least six times higher among women who have been cured of cancer of one breast than in women without mammary cancer.

Restoration of Conceptive Ability following Surgical Sterilization

By C. A. Paukstis, M.D.

Ludington, Michigan

THIS IS the report of a successful operation for undoing a surgical sterilization.

A white woman (D. S.), twenty-five years of age, came to me in November, 1946, with the following story: She had had two children with normal deliveries. Following the last delivery in 1940, because of economic circumstances, the patient had a tubal ligation performed at another hospital. In the spring of 1946 the oldest boy died, following surgery.

Due to the patient's religious faith, a troubled conscience, and because of her desire for more children, she and her husband wanted to know if anything could be done to enable her to become pregnant again. I explained that the only chance she had was to untie the tubes by surgery, and then the possibility for pregnancy was very slight.

Two weeks following the first consultation, the patient and her husband returned and said that they would be willing to take the small chance that surgery might have to offer.

Examination showed this patient to be in good physical condition. Examination of the abdomen showed an old suprapubic right rectus incision. There were no tumors palpable, liver and spleen were not enlarged, and there were no areas of deep tenderness.

Pelvic examination showed a parous vaginal outlet, with fairly good support. Fundus was in mid-position, normal in size, shape, and contour and not tender. Adnexia was normal. Cervix was parous and had a shallow bilateral laceration with a small erosion about the size of a twenty-five-cent piece.

Rectal examination was negative.

On the morning of November 21, 1946, a transverse skin incision was made three finger-breadths above the symphysis pubis. The anterior rectus sheath was also cut transversely; the recti muscles were separated from the midline and retracted laterally. Peritoneum was then opened transversely.

The uterus was found to be in mid-position. Examination of the fallopian tubes showed that these tubes had been crushed in mid-portion and tied with medium black silk. This portion was cut in a V-shape; then a fine flexible probe was passed into both segments of the tube, which were patent. An end-to-end approximation of the tube was done, using fine silk. This same process was repeated on the other side. The appendix having been previously removed, the incision was then closed in layers.

(Continued on Page 1243)

Accident Prevention through Epidemiologic Analysis

By John E. Gordon, M.D.
Boston, Massachusetts

TO SPEAK of accident prevention as a feature of medical practice, and of an epidemiology of accidents as a means to that end, is to recognize a changing world and an altered character of medical activities. The question at issue is not of the place of preventive medicine in medical practice; that has become too well established in the course of the past fifty years, and in the past half century too well incorporated in the everyday interests of practicing physicians. The question rather is of the extent and compass of preventive medicine. The long restriction to matters concerned with communicable diseases is difficult to outlive; prevention is still too frequently considered as something having to do with rashes. Rashes and the infections have their part, as they have had for many years, but the field of prevention enlarges. Earlier this year a national congress was devoted to the preventive aspects of chronic diseases; and active programs were constructed for such conditions as cancer, diabetes, rheumatoid arthritis, mental disorder and others. Ten years ago, such a systematic consideration of these interests would have been impractical, for too few people would have been interested; and twenty-five years ago such an idea would not have been entertained.

Accidents as a Cause of Death

The enlarged concept of preventive medicine has recently come to include injuries of accidental origin. An examination of the first ten leading causes of death shows in 1900 a list that included five infectious diseases. First and second places were occupied by communicable diseases, namely tuberculosis and pneumonia. In the latest available data, those of 1948, only two infections remain in these first ten principal causes. They are the last two mentioned, the pneumonias and tuberculosis, but now they rank seventh and eighth instead of first and second. Other conditions, such as heart disease, have taken their place, and high on the list in fourth place, exceeding any infectious disease, are the deaths that result from accidental injury. Some diseases then have become of lesser importance, and those include all of the infections, while others have gained significance, primarily the degenerative and neoplastic diseases. Accidents through all these years have continued to cause death in the American population at almost the same rates as ever. Little or no progress has been made with these conditions, despite the lack of extenuating circumstances provided by an older population and other reasons that justify a greater frequency of death from such causes as the degenerative diseases.

No intent is implied or suggested to discount the importance of the infectious diseases as a principal field in preventive medicine. To be sure, the days of the great epidemics are over; but infections are far from limited or, in many instances adequately controlled. The obligation remains to hold the gains that have been made and to effect further progress in such diseases as tuberculosis which continue among the important health problems of man. The point to be made is that a limitation of effort to these interests is no longer warranted; that preventive efforts in other diseases have equal importance, and finally that traumatic injuries as a class are commonly not even included among preventive interests.

Preventive Measures Applied

When medicine some fifty years ago came to the realization that practice had more than an obligation to care for the sick and injured, that prevention was an integral part of medical activities, the curious paradox developed that the new enthusiasm for prevention was directed almost wholly to disease, to the neglect of the other major class of disabilities, the injuries. Only in recent years and largely as the result of medical activities in war, which has been termed the epidemiology of trauma,[5] has full appreciation developed of the part that injuries have in total physical disabilities of man. Opinion has taken two forms: first, that a goodly part of traumatic injuries are of accidental origin, and second, that to a distinct and practical extent they are preventable.

The significance of accidents as a cause of disability is established by the demographic data just cited. It remains now to give evidence that preven-

From the Department of Epidemiology, Harvard University School of Public Health, Boston, Massachusetts.
Presented at the Fifth Annual Michigan Clinical Institute, Book-Cadillac Hotel, Detroit, Michigan, March 14, 15, and 16, 1951.

tion is possible, to show that accidents are a problem of communities of people and a concern of the public health, and finally to point out that epidemiology has a place in the solution of the problems that accidents present, as in such better known situations as the communicable diseases.

First off, I would disarm those who offer the trite rejoinder that they did not know that accidents were contagious. As a matter of fact they are, as is apparent in the everyday experience of anyone, for one car in trouble on a highway commonly leads to a pile-up of others. Epidemics of accidents have involved whole populations of states and of armies in combat. As in most health problems of communities, the bizarre and unusual epidemic is not the main consideration, but rather the enduring, continuous, solidly implanted endemic diseases of populations are what exert the principal cost. My purpose then is more serious than to speak of communicability of accidents and the epidemics that follow. I propose to demonstrate that accidents as a health hazard of communities conform in origin and course to the same biologic laws that govern all mass disease,[3] with specific relationships to time, place and person; and as a consequence that the losses in crippling and in days of disability are susceptible to the same methods of study as are those resulting from poliomyelitis.

The usual tendency is to ascribe accidents to ill luck, chance or a mistake of nature. Some few are; most are not. This interpretation is like that of two or three centuries ago, when demons were thought to be the cause of disease. They do not cause disease, nor is bad luck the reason for accidents. Accidents also have demonstrable causes.

The final consideration is that of preventive measures which in many instances are of a kind productive of greater result than those for other mass diseases, in which huge sums of money are invested. However, the same principle holds, that the usefulness of preventive measures is determined by a knowledge of cause, since the right measure must be applied to the proper cause. Mass disease is thus like clinical medicine; and injuries are like disease.

The Problem of Accidents

A logical approach to any problem requires understanding of its size, the time that it has been active, and whether it is increasing or regressing in importance. These are also basic epidemiologic considerations. For many years deaths from accidents have remained at a remarkably even level. Progress has been made with some kinds of accidents, but new events, particularly the introduction of the motor car, have served to neutralize the gains made in accidents of industry, for example. At any rate, close to 100,000 persons die each year in the United States from accidental death. Death however is only one of three common measures by which the cost of disease is determined. The others are the extent of permanent crippling, with lessened physical efficiency; and the number of days of productive effort lost through temporary disability. The data for the United States as a whole in these two respects are impressive. More than 10,000,000 persons suffer a loss of one day or more from accidental injury each year. Of these, some 380,000 experience a permanent crippling effect of varying degree.

The cost of accidents is also to be expressed economically, with estimates that loss of wages, cost of medical care, maintenance during disability and all the other money values of an accident, amount to no less than seven billions of dollars each year. The over-all problem is evidently great.

Kinds of Accidents

Classification is the basis of all scientific medicine, and hence with accidents is the first step towards understanding. Traumatic accidental injuries are classed for practical purposes according to the place they occur. Four groups are distinguished, to include home accidents, those related to motor vehicles, those that occur in public places, and finally, the accidents of industry. They are arranged above in order of frequency, which will occasion some surprise. A common interpretation of accidents is that they have something to do with the work in which people engage. Perhaps that is because industry has done most in the prevention of accidents related to occupation; actually this class of injuries is now the smallest of the four. Few would put the home as the most dangerous place to live, but from the standpoint of accidents it is.

The classification just given marks accidents as being a community problem. The limitation of accidents is consequently a responsibility of community organization, in which medicine is invariably included. Some kinds of accidents are dealt

with most effectively by one organization, some by another, but none without medical consultation. Most local and state authorities have set up independent organizations for the control of motor vehicle accidents. Police responsibility acts almost wholly for accidents occurring in public places. The accidents of industry receive the solid attention of specialists in industrial medicine and of safety engineers, primarily because it is good business. For the largest group of accidents of all, those that occur in homes, there is in our present society no constituted authority to provide aid, and no program for control for the costliest of all accidents, in whatever terms that cost is assessed. I see only one satisfactory approach to this problem and that is through the practicing medical profession, along with the aid to be had from the organized public health facilities of the community.

An Epidemiology of Accidents

Appreciating that accidents are not a chance circumstance affecting an individual but are community problems, where the causes of origin rest within the total environment, the reasonableness of an epidemiology of accidents becomes more apparent. The problems of one community or of one person differ from those of another. Within any population the frequency of occurrence varies according to time, to place, and through the kinds and numbers of persons affected. Therefore what is done about accidents in a particular community is subject to the same variation.

The basic need is for a diagnosis of the community situation. Michigan for instance has a high rate for motor vehicle accidents, but good rates in other classes. The state has an important summer vacation industry, and yet I doubt if information is available on the frequency of accidents in camps and resorts as compared with homes, of the relative nature of injuries under the two situations, and less still of what could be done or is done in their prevention.

Accidents of all classes show seasonal fluctuations in frequency as regularly occurring as those that characterize measles and mumps, and as distinct as those of respiratory infections in winter and of the intestinal disturbances in summer. These facts must be known if effort in control is to be logically applied. Early December in this latitude is marked by a seasonal prevalence of motor vehicle accidents, and the answer is certainly not alone the weather and road conditions, for those two features are much worse in February.

Epidemics, or periods of unusual numbers of accidents, are to be identified. Other kinds of accidents are to be recognized as endemic, with a frequency of accidents more or less fixed but by no means stationary. These affairs are the business of the epidemiologic method, and that method has an application in this field as in other mass disease. It is the means by which to determine the kind of accidents with which to be concerned.

Epidemiology Applied

Epidemiology in mass disease is the counterpart of diagnosis in clinical medicine[2] since it is the means by which treatment is directed. That being the purpose of epidemiology, illustrative examples are now presented of the control of accidents based on epidemiological study.

The high rates for motor vehicle accidents associated with American holidays are well known. In Massachusetts studies were made of the epidemiological features of these events. Motor accidents were found twice as frequent in early evening as in the morning, and yet essentially the same number of drivers were on the road in these two peak periods. Certain places, streets and intersections, were found to have a higher than average rate. On the basis of such information, available officers were stationed in selected places and at selected times. The arrangement was called selective enforcement and in reality was nothing more than the epidemiological principle of focal attack on the strongholds of disease, which is so much a part of communicable disease control. The result was a favorable accident record such as never before obtained during holiday periods.

From the standpoint of endemic problems in motor accidents, which is the continuing rate of incidence that prevails in Massachusetts, a peculiar circumstance was defined. A wave of increased numbers of accidents characterized the age group of twenty to twenty-four years. The curve then subsided somewhat, eventually to take a continually upward trend with increasing age to attain maximum values which always exist at the older ages. Particular effort was directed toward the twenty to twenty-four age group through more stringent enforcement measures, with the result that this bulge in the curve was eliminated and

it became a continuous trend line. With essentially no change in the rates at other times of life, which indeed coincided with those of most states, this single activity, this straightening of the curve and elimination of one troublesome feature had the result of giving Massachusetts the best over-all rate of any state in the country.

Another Massachusetts study[6] is particularly informative. Massachusetts has one of the better rates among states for accidents of all forms, and close to an enviable record. Analysis of the gross rate showed, however, that the commonwealth enjoyed its favorable position by reason of the excellent rate for motor accidents, already referred to, and because of a superior performance in industrial accidents by reason of a program that had long been in force. When the record for home accidents was examined, Massachusetts was among the poorer states, and had no reason at all for complacency. Further examination of the data showed that excessive numbers of home accidents were occurring among elderly people, of which the state has a goodly portion, and also that falls were the main difficulty. Instead of an indscriminate blanket program against all home accidents, which is too common a practice, the indication was clearly for an effort directed toward falls among aged people. This is treatment as specific as quinine in malaria.

Causes of Accidents

Attention is now turned from accidents as a problem of communities to the causes of the individual accident. There is no single cause of accidents in general, nor of any one kind of accident. Causation is to be found in the same general principles that apply to all diseases,[4] and diagnosis is the same critical consideration. Causation is to be recognized variously in the agents that cause accidents, in the qualities of the people that suffer them, and in the effects of the environment that act on both.

A variety of objects and things are included in the active agents that cause accidents: poisons, burns, cutting instruments and many others. The significant consideration is that one kind of agent has a particular importance with one kind of people and another under different circumstances. Thus cutting and piercing instruments are a factor of accidents among children, especially boys, and less a feature of adults. Burns are a problem of children, and falls of the aged. Much depends upon the availability of the agent in the community and much upon the kind of people exposed. These things must be known for an intelligent control program.

Material differences are seen in the kinds of people who have accidents. An informative study was made of motor drivers in Britain.[1] Drivers were divided into two classes at the end of their first year of experience with a motor car, those who had had one or no accidents during the year and those who had had three or more. The experience of the next four years showed that those who originally had had one accident continued to have a low rate, and those who had had three accidents continued to have a high rate, both groups continuing essentially at the same level. This demonstrates a feature of accident causation of much significance, namely, that certain persons have an innate likelihood to have accidents. In common parlance they are known as stumble bums; scientifically they are labeled the accident prone. This host characteristic is by no means restricted to motor accidents as just illustrated. Such persons tend to have more accidents than most people in whatever circumstances they are placed.

Age and sex are other important host factors in accident causation. Boys have more accidents than girls, elderly women more than elderly men. A main part of the accident problem relates to children, for through age twenty-eight years, except for the first year of life, accidents are the first cause of death, a situation too little appreciated. The rates are excessive at the two extremes of life, with improvement to be noted in the frequency of accidents of children and an increasing trend in rates for the elderly. Environmental influences enter pertinently into accident causation. Each season has its particular kind of accident and these need to be known: swimming in the summer, and falls in the winter, for instance. Weather is another determining factor. Geographical differences are pronounced—with higher rates, for the country as a whole, characterizing the western states compared with the eastern, and the south compared with the north. Persons residing in cities have more accidents than those in rural regions, with suburban residents enjoying the most favorable record. Material differences are seen in the kinds of accidents in these several situations, with accidents on the farm as individual a problem as accidents in industry. Each state and each indi-

vidual city needs to determine its special problem, which brings us to the question of prevention.

Accident Prevention

The general problem of accidents is a community matter, with the doctor called upon to take his part as do other citizens and other governmental authority. One essential, as has become evident in the discussion thus far, is for each community to determine the specific nature of its accident hazards. In this the physicians of the community and the local health department will have a material part. Kalamazoo has done this in first-class fashion and fosters an active program of prevention.

The responsibility for programs of prevention, as determined by individual needs of the community, will in many instances rest with other community organizations than the medical profession, such as fire and police departments and welfare agencies. Limitation of the main class of accidents, those that occur at home, can only be effected, however, through the activities of the medical profession. No other agency exists.

Attendance on a fracture case calls for advice on the causes that give rise to the disability as well as good clinical management, and so with the many other traumatic injuries that are a part of private practice. This is preventive medicine in its true application, as definite as immunization against diphtheria.

Physicians in a number of communities are working toward accident prevention through the hospitals in the locality, with a search for cause in all accident cases admitted to hospital or out-patient department, and thereby instituting prevention through education. As practical a form as these activities take is to be found in the little booklet on accident prevention used by the Children's Hospital of Boston. This brochure tells what to do and what not to do in a variety of situations and is intended to be hung up with the telephone book.

Summary and Conclusions

My purpose in presenting accident prevention as a community health problem, and as an obligation of the practicing physician has been twofold. Accidents as causes of death and disability are among the more important conditions in medical practice, particularly in childhood and for elderly persons. Accidents to a material extent are preventable conditions. Adequate control of the chief class, that of home accidents, is only to be brought about through activity by the medical profession.

In stating my second purpose, I assume that prevention is an integral part of present-day practice. I know Michigan doctors and from personal experience have seen the interest manifested in immunization against diphtheria and in many other preventive measures. What I wish to establish is that preventive activities in private practice now extend measurably past a concern with communicable disease. In medicine or in any other profession, it is easy to go along from year to year with little realization of the changes that are taking place. This morning I visited the Herman Kiefer Hospital and saw there some seventy patients. We checked the older records and found that twenty years ago when I directed that service, the number of patients exceeded 600; and the population of Detroit was about half what it is now. Times have changed, and with them, medical interests.

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MSMS

RESTORATION OF CONCEPTIVE ABILITY

(Continued from Page 1238)

Postoperative course was uneventful—the patient being discharged on the third postoperative day. Satisfactory recovery was made at home.

In April, 1947, the patient missed her menstrual period. Examination in July revealed without a doubt that the patient was pregnant. On December 23, 1947, she delivered a normal baby girl. Pregnancy, labor, and the post-partum period were all uneventful. Another baby girl was delivered on April 26, 1949.

This case is reported as a matter of interest, for there was no special technique, suture, or instrument used. The operation was very simple and the results were gratifying.

Diagnosis and Treatment of Congenital Urethral Valves

By R. M. Nesbit, R. L. Thirlby, and F. P. Raper
Ann Arbor, Michigan

THIS SUBJECT is presented not because of its rarity nor because the authors have accumulated a large series of unusual cases; rather it is presented because the condition of congenital urethral valves is not rare and because both its early recognition by the physician and proper treatment are needed to prevent urological crippling and even death in young boys. The purpose then, of bringing this condition to your attention, is to emphasize its grave implications and at the same time to dispel the general opinion regarding its occurrence, lest its assumed rarity exclude its consideration in the differential diagnosis when the physician is confronted with a urological problem in a male infant or child.

Congenital urethral valves are classically thought of as being filamentous, veil-like structures arising from the floor of the prostatic urethra. These valves are usually quite delicate in structure but they act as sturdy barriers against the normal, free flow of urine from the bladder. Besides these valve-like structures there are other, less frequently encountered, obstructing lesions at the bladder outlet in small children. In one case we have encountered a predunculated mass of muscular tissue arising in the prostatic urethra that acted like a ball valve at the neck of the bladder. In another there were two, symmetrically placed horizontal flaps of bladder mucosa arising from each side of the bladder just above the trigone. These came together much like a pair of mammoth vocal cords just above the bladder outlet and interfered with normal evacuation. Any of these obstructing lesions may cause irreversible damage to the bladder, the ureters and the kidneys (Fig. 1).

The extent of upper urinary tract damage depends upon two factors: degree of obstruction and its duration, and these factors of course will vary in each case. Consequently, the age that patients are brought in for treatment will vary. In our series the most severe damage to the upper urinary tract has been seen in the youngest of the patients. An explanation for this fact is to be found in the degree of obstruction. These babies suffered from marked urinary retention at birth; in fact, the youngest of our patients—seven weeks old when admitted—had such marked dilatation of the ureters and kidney pelves that it seems likely these changes must have developed during the later stages of fetal life. The oldest child in our series of twenty-two patients was seventeen.

The first symptoms to be recognized in these patients may be grouped as follows: obstructive symptoms, fourteen patients; repeated urinary tract infections, seven patients; uremia from birth, one patient. The obstructive symptoms were not always recognizable as such by the parents, and only six children were brought to the doctor because of difficulty in voiding. The other eight all had incontinence of urine due to overflow from a distended bladder, and in three of these the only complaint was bedwetting. Another difficulty in diagnosis lies in the fact that overflow incontinence may commence before the child can be expected to have developed full urinary control, and few parents would suspect that any disease existed.

However, the onset of a urinary tract infection may cause the parents to consult the doctor and so present a chance for making the diagnosis. Boys do not commonly get urinary tract infections, and some underlying disease of the urinary tract should always be suspected when this occurs, especially if the infection proves difficult to cure. Fourteen of these twenty-two children had treatment for urinary tract infections at some time, but in only five did it lead to immediate investigations of the urinary tract which might have led to the diagnosis.

In the more advanced stages of the disease the symptoms are apt to be those of renal failure, but, when seen for the first time in a child not known to have any disease of the urinary tract, these symptoms may be very difficult to interpret. Thus, three children in the present series who had a fever and a high respiratory rate when first seen were understandably thought to have a respiratory tract infection. They did not respond to treatment with penicillin; and the increased respiratory rate was in fact due to acidosis associated with uremia and the fever due to pyelonephritis. Any infection is poorly resisted by children with severe renal disease

From the Department of Surgery, Section of Urology, University of Michigan Medical School, Ann Arbor, Michigan.

Presented at the Fifth Annual Michigan Clinical Institute, Book-Cadillac Hotel, Detroit, March 16, 1951.



Fig. 1. Cystogram of an infant revealing elongation and dilatation of ureters, marked hydronephrosis secondary to congenital urethral valves.



Fig. 2. Cystogram which reveals ureteral reflux and dilatation of the upper tracts.

for they are usually anemic and undernourished. In addition, their kidneys, which have been striving to maintain a normal electrolyte and water balance, may be unable to cope with the additional burden of an infection anywhere in the body and as a consequence, acidosis and uremia then develop. In this series two children were first brought to the hospital when comatose from uremia. One was twelve years old and had always been a bed-wetter; his uremia developed during a throat infection. The other was only seven weeks old and could not well have been diagnosed earlier.

In summary then, the following symptoms occurring in boys may be due to the presence of valves or other obstructive lesions in the prostatic urethra: (1) difficulty in voiding; (2) incontinence; (3) urinary tract infections, especially those which are difficult to cure; (4) the development of semi-coma during any acute infection.

The general examination may show anything from a normal child to a comatose baby in the throes of a convulsion. Of these twenty-two children, only four were described to be below average in development. These four chidren, all seriously ill with advanced renal failure, manifested signs of uremia; being drowsy and vomiting, and two were having minor convulsions. One boy had muscular cramps due to a low blood calcium. Thus, less than 20 per cent of the patients have shown any striking deviation from normal on general examination.

However, examination of the abdomen revealed the most important single physical sign, namely, a distended bladder. This was found in all but one of the twenty-two children. The distended bladder in children is not always easy to feel, being often soft and ill-defined, but careful palpation and percussion should detect it. If such a swelling is discovered, an attempt should be made to watch the child void, for in the presence of urethral valves micturition is accomplished only by noticeable straining, the stream is poor, often interrupted, and the volume of urine produced at each urination is small. This is very different from the normal child or one with functional enuresis who is able to void without difficulty and can empty his bladder without interruption in the urinary stream. The penis should be carefully examined to exclude the presence of phimosis, pinpoint meatus or a hypospadias with a meatal stricture.

The urine should be examined to determine whether infection is present, and chemical blood studies will indicate renal insufficiency. If the urine is infected, the child may be catheterized

without great risk in order to determine the amount of residual urine and to establish early drainage. But children who have a palpable distention and uninfected urine should not be catheterized be-

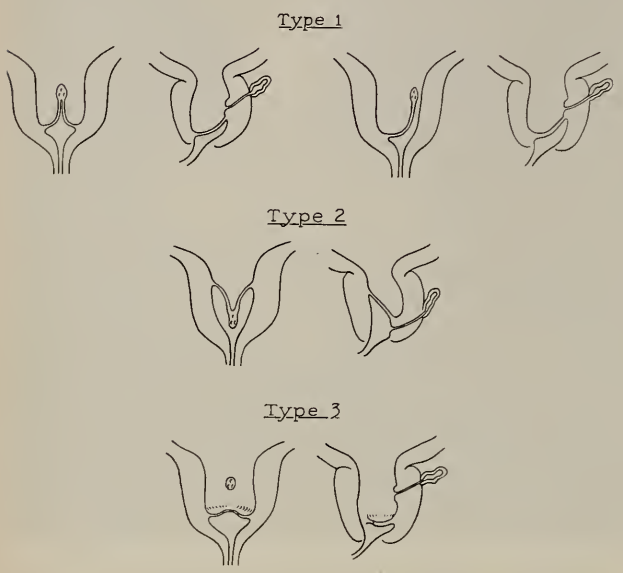


Fig. 3. Diagram of types of urethral valves. Frontal and sagittal views.

cause of the grave risk of infection. Should the latter be found to have nitrogen retention an immediate cystostomy should be performed. This will provide necessary drainage and will avoid many of the risks of infection that are inherent in urethral catheter drainage. When early suprapubic drainage is done, the investigation of the entire urinary tract can be delayed until renal function has been stabilized.

Excretory pyelograms should be made in all cases except those that are uremic. And patients that are on catheter drainage should have x-rays made after filling the bladder with contrast medium introduced by way of the catheter. The cystogram made in this way will sometimes reveal evidence of an obstructive lesion at the bladder outlet, since often these patients will be found to demonstrate ureteral reflux when the ureters are greatly dilated. When reflux occurs the pelvis of the kidney as well as the dilated ureter will usually be demonstrated (Fig. 2).

The examination of the urethra for valves is fraught with difficulty and not without danger. The small urethra of infancy and childhood, the necessary limitation in the size of instruments which can be used, the difficulty of manipulating such instruments without causing damage, and the delicate structure of the tissues being sought, all mitigate against the successful endoscopic demonstration of urethral valves. Nevertheless, such visualization has been found possible in all but one of the patients on whom it was attempted in our series of cases. On three occasions the examination was simplified by first performing a perineal urethrotomy through which the instrument was passed, thus avoiding damage to the small pendulous urethra and allowing easier manipulation. The diagram of the different types of valves is the most lucid means of description (Fig. 3). Some patients beside having valves are found to have thick folds of mucosa, looking very like nasal turbinates, running longitudinally in the proximal part of the prostatic urethra. The latter may be a secondary lesion but seem to participate in causing obstruction (Figs. 4, 5 and 6).

Treatment

Eleven of the twenty-two underwent cystostomy and removal of the lesions either at the time of suprapubic drainage or soon afterwards. Direct endoscopic attack upon the obstructing lesions without cystostomy was carried out in seven patients. The remaining four were subjected to cystostomy only, never improving sufficiently to permit the safe performance of any further treatment.

Three routes of approach to the lesions have been utilized. The transvesical and transurethral approaches were used in the earlier patients in this series. Since Millin popularized the retropubic operation for prostatectomy, that technique has also been utilized in operating upon bladder outlet obstructions in children. This method allows direct inspection of the obstructing tissues since the prostatic urethra and vesical outlet can be adequately exposed, thus permitting an accurate evaluation of the obstructing structures so that a direct, atraumatic excision of the lesions can be carried out. The retropubic approach to the treatment of these cases is now the method of choice.

Results

Four patients died, seven patients still have cystostomies (six of which are likely to be permanent), and eleven patients are able to void per urethra. The four patients who died were two months, two and one-half months, nine months and twelve years old, respectively. All had far-



Fig. 4. Artist's drawing of longitudinal mucosal folds in prostatic urethra.

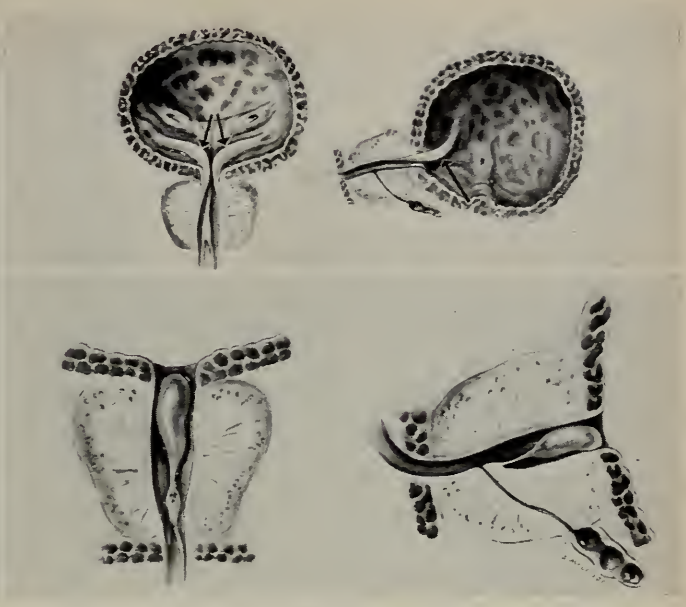


Fig. 5. *(above)* Artist's drawing of redundant folds of bladder mucosa which have prolapsed into vesical neck and proximal prostatic urethra.

Fig. 6. *(below)* Artist's drawing of polypoid lesion within prostatic urethra. This lesion arose from the verumontanum.



Fig. 7 *(a)*. Initial cystogram of a boy with congenital urethral valves. This shows ureteral reflux with marked hydroureters and hydronephrosis.



Fig. 7 *(b)*. Excretory pyelogram after four years on cystotomy drainage showing marked reduction in the hydronephrosis.

advanced hydronephrosis, complicated by a fulminating pyelonephritis. Autopsy was performed on two of them and showed definite urethral valves in both cases.

The seven patients who still have cystostomies have had this form of drainage for at least one year and one for as long as seven years. Only two

(Continued on Page 1301)

Silicosis Encountered among Automobile Workers

By I. Donald Fagin, M.D., and
Harry Balberor, M.D.

Detroit, Michigan

THE DIAGNOSIS of silicosis during life is dependent at present upon a history of adequate exposure to finely divided silica particles plus characteristic roentgenologic findings. In the early phases, the disease is generally asymptomatic. With progression of the pulmonary fibrosis resulting from the inhaled silica, symptoms may appear due to ventilatory and/or respiratory insufficiency, right heart strain, and superimposed pulmonary infections, particularly tuberculosis.

In private medical practice, silicosis is frequently missed unless routine chest x-rays are taken. Historically and traditionally, the major emphasis on silicosis is in the mining industry, because of the high incidence therein, and most of the available medical literature deals with mining exposure. However, it must be emphasized that foundries and other industrial environments may also be sources of silica exposure, and the disease is not uncommon in industrial centers which are far from mining areas.

We have encountered numerous patients with silicosis at a medical diagnostic clinic serving automobile workers in Detroit, and this presentation is based on a review of 100 consecutive cases of silicosis. This review was productive of several interesting facts worthy of record, since these patients and others like them are being encountered by private practitioners and industrial physicians in this area. There is an extensive literature available on practically all aspects of silicosis, and to avoid redundancy we shall confine our comments to the present case material and the problems which such cases pose. A brief word as to criteria for diagnosis is in order. It has been our policy to make presumptive diagnoses of silicosis only in those patients who have had occupational exposure to silica atmospheres of apparently sufficient degree, and whose chest x-rays exhibit distinct changes compatible with silicosis. It may be stated categorically that without evidence of the disease in the roentgenogram the diagnosis of silicosis cannot be confirmed during the life of the patient as yet.

There are numerous classifications of silicosis extant, based on clinical, pathologic and roentgenologic criteria. Since the clinical classification depends greatly on the individual's ability to compensate for pulmonary fibrosis and introduces marked subjective variants, and since our material did not permit classification based on anatomic criteria, we have used solely the chest x-ray as the basis for classification into three stages. For our own convenience we have designated Stage I as that exhibiting diffuse miliary or sub-miliary nodulation in the lung fields. Stage II is characterized by confluent nodulation and Stage III by massive fibrotic areas and/or very marked coalescent nodulation.

According to the roentgenologic classification in most common usage in the United States, the first stage of silicosis is characterized by increase in the linear markings in the lung fields, accentuation of the bronchovascular shadows at the lung roots, and thickening of the hila. However, these changes are too nonspecific to warrant their use as a basis for diagnosis, since they are encountered frequently with acute or chronic pulmonary or bronchial infections, congestive heart failure, and as "normal" variants.

The classification we have used is not offered as a substitute for existent schemes, of which there are too many, but it has been convenient for our use, and is consistent with reasonable diagnostic accuracy. It will be noted that our criteria for the roentgen diagnoses of Stage I silicosis are somewhat more rigid than those generally accepted since we do not make a diagnosis of silicosis in the absence of nodulation.

The etiologic data in these 100 cases are presented in summary form in Table I. In ninety-six of the 100 patients the exact years of employment in occupations with probable exposure to silica could be obtained, and the average duration of such employment was twenty years. In the remaining four patients the data given as to years of employment were too inexact to warrant inclusion. Except for mining, glass manufacturing and stone quarrying, the types of occupational exposure indicated in Table I were in branches of industry concerned with automobile production.

From the Medical Service of the Mt. Carmel Mercy Hospital, Detroit, Michigan; Dr. H. L. Smith, Chief of Service.

TABLE I. ETIOLOGIC DATA IN 100 PATIENTS WITH SILICOSIS

Sex:	All male.		
Color:	White:	87 patients	
	Negro:	13 patients	
Age:	Range:	28-82 years	
	Average:	55 years (over 90% were between 40 and 69 years of age)	
Occupational Exposures:			*Average Exposure*
Mining		52 patients	16 years
Foundry (including molding, sanding, sand-chipping, cupola tending, shake-out)		52 patients	14 years
Grinding		12 patients	9 years
Metal-polishing and finishing		9 patients	12 years
Core-making		6 patients	15 years
Glass manufacturing		1 patient	14 years
Stone quarrying		1 patient	1 year
Single type of occupational exposure as listed above in			71 patients
Two or more types of occupational exposure in			29 patients
Duration of Occupational Exposure:			
Range		1 year (stone quarrying) to 47 years (coal mining)	
Average exposure		20 years (based on 96 patients)	
Number of patients employed in probable silica atmosphere at time of examination			37

TABLE II. CLINICAL FEATURES IN 100 PATIENTS WITH SILICOSIS

Symptoms:	
None referable to pulmonary disease	in 39 patients
Dyspnea	in 36 patients
Cough—Productive	in 23 patients
Nonproductive	in 14 patients
Hemoptysis	in 2 patients
Chest pain	in 15 patients
Weakness, malaise, and/or ready fatigability	in 13 patients
Weight loss	in 8 patients
Physical Signs:	
None referable to pulmonary disease	in 66 patients
Râles, changes in breath sounds or percussion note	in 27 patients
Moderate to marked emphysema	in 13 patients
Cyanosis	in 2 patients
Clubbing of fingers	in 1 patient
No signs or symptoms referable to pulmonary disease	in 34 patients
No complaints whatever—patients entered for general physical examination	10
Number of patients who had previous knowledge of silicosis	16
Laboratory Findings:	
Roentgenologic Stage of Silicosis	
I	77 patients
II	14 patients
III	9 patients
Elevated sedimentation rate in 24 (out of 42 patients tested).	

About one-half (fifty-two) of the patients gave histories of mining exposure, but it is significant to note that seventy-nine patients received additional or sole exposure in some branch of the auto industry, such as foundries, body shops (metal polishing and finishing), machine shops where grinding is done, and in core-making departments. In seventy-one patients there was a history of only one type of occupational exposure, consisting of mining in thirty-five patients or foundry work in twenty-nine patients. In the twenty-nine patients who had two or more types of exposure, the commonest story was that the patient had worked in the coal mines and had then migrated to this area to engage in foundry work.

It is important to note that at the time of examination, thirty-seven of the 100 patients were still employed in probable silica atmospheres. In foundry work, silica dust may be produced by sand-blasting, shake-out processes, molding, grinding, tumbling, cupola patching, et cetera. Industrial hygiene departments under plant or public auspices have carried on extensive educational campaigns in the past decade or two which have helped minimize or eliminate the silica risk by proper housekeeping, dust trapping, isolation of dusty procedures, insistence on proper respiratory protection for and by personnel, and substitution of non-siliceous materials wherever possible. However, some of the smaller foundries particularly still remain potent sources of silica exposure for workers employed therein. Since it is often impossible to differentiate the fine nodulation of siderosis from that of early silicosis, it is possible that some patients with foundry exposure only who exhibit nodular fibrosis on x-ray examination may actually be cases of siderosis.

Table II summarizes the clinical features of the 100 patients studied, and we shall merely emphasize a few features. Since ninety-one of the patients fell into Stage I or II, it is not surprising that many (thirty-nine) had no symptoms relative to silicosis or its complications, and even more (sixty-six) exhibited no physical signs referable to pulmonary disease.

In general, it was noted that patients with Stage I or II silicosis tended to have mild or moderate symptoms and physical findings, and those with grave lesions (Stage III) had more severe clinical findings. However, there was no absolute correlation. It was particularly noted that some with Stage III silicosis had no symptoms or physical findings whatsoever, indicating that even extensive pulmonary fibrosis sometimes may cause no demonstrable functional impairment. Also, some patients with Stage I silicosis had relatively severe clinical manifestations. Since silicosis often leads to pulmonary emphysema, the relative infrequency of clinically apparent emphysema in this group (thirteen patients) may be accounted for by the predominance of the Stage I group. It is worthy of emphasis that only sixteen patients in this entire group knew that they had silicosis prior to their examination at the clinic.

The effects of fibrosis on the lungs are varied. The fibrous tissue may replace normal alveolar structures, and by subsequent shrinkage may lead

TABLE III. ASSOCIATED DISEASES IN 100 PATIENTS WITH SILICOSIS

Tuberculosis			20
Active	6		
Sputum positive		3	
Inactive	14		
Cardiovascular Disease			14
Hypertensive	7		
Arteriosclerotic	3		
with myocardial infarction	2		
Syphilitic aortic insufficiency	1		
Cor pulmonale	4		
Prostatitis	4		
Osteoarthritis, marked obesity, gastroenteritis, hernia, osteoporosis, generalized arteriosclerosis			2 each
Duodenal ulcer, epilepsy, pompholyx, diverticulosis, hyperinsulinism, brain tumor, Parkinsonism, syphilis, thyrotoxicosis, malaria			1 each

to distortion of the surrounding alveolar bed, to interference with the elasticity and distensibility of the lungs, to distortion of the bronchial tree and to interference with pulmonary arterial flow. These pathologic changes result in impairment of the ventilatory efficiency of the lungs (the ability to keep air moving in and out) and of the respiratory efficiency (the ability to maintain normal oxygen-carbon dioxide gas exchange between the alveolar air and the capillaries of the lungs). From the standpoints of therapy, employability, and compensability it would be extremely helpful if simple tests existed for the evaluation of the degree of pulmonary disability. However, the older tests of pulmonary function, such as determinations of vital capacity and the respiratory response to exercise are too rough to be reliable. The tests which have come into prominence in recent years such as the determination of maximal breathing capacity, maximal oxygen consumption, alveolar and blood gas determinations, bronchospirometry, et cetera, are too complicated for routine use by plant medical departments or by private practitioners. In addition, these tests of respiratory function are subject to wide variations in their normal ranges, and the zone of overlapping in normal patients and in patients with pulmonary disease is broad. For these reasons, we are forced in most instances to gauge the degree of disability in silicosis on the patient's subjective evaluation of symptoms, on a paucity of physical signs, and on chest x-rays, admittedly inaccurate bases for evaluation, and the source of much medicolegal controversy. In addition, the coexistence of other diseases which may embarrass respiratory function, such as heart disease (as indicated in Table III), may serve to further complicate this issue.

Table III summarizes the presence of tuberculosis and other diseases in these 100 patients with silicosis. In twenty patients the roentgenograms were considered to be compatible with silicotuberculosis. Of these only six were considered to have active tuberculosis and three were confirmed by demonstrating positive sputa. It must be emphasized that the presence of silicosis often makes it difficult for the roentgenologist to discern the tuberculous lesion, especially when the latter is minimal. Thus it is probable that a larger percentage of the cases actually had tuberculosis, either active or inactive.

There is by no means unanimity of opinion as to the desirability of removing a patient with silicosis from employment in a silica atmosphere. Even when completely removed from any further possible exposure, silicosis tends to be progressive, and the progressive shrinkage inherent in fibrous tissue is not affected, It seems to us much more desirable to eliminate the silica hazard from the environment by proper industrial hygiene, than to remove the silicotic patient from a job for which he is trained. However, we agree with the majority opinion that, in the event the silica hazard cannot be eliminated, the patient should not be further exposed to dangerous concentrations of the dust.

From a medical standpoint, periodic physical and x-ray examination of people employed in silica atmospheres is essential for the early recognition of silicosis. In May, 1945, the Michigan Workmen's Compensation Law was amended as follows:

"Provided further, that all employers subject to the provisions of this act shall furnish to their employes without charge a complete physical examination at regular intervals, but not more than one such examination in each period of six months, and shall furnish to the employe a true copy of the medical report when the presence of silicosis, pneumoconiosis or other dust disease is found; provided further, that employes who shall refuse to submit to such examinations when required shall not be entitled to the benefits provided by Part VII of this act."

In May, 1948, the Michigan Supreme Court found this section unconstitutional because it was felt to contain provisions which were indefinite, uncertain and unreasonable. The decision was rendered in response to a test case sponsored by the International Molders and Foundry Workers of North America. Union objections to the peri-

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A Tuberculosis Control Program in a Mental Institution

By J. L. Isbister, M.D., P. C. Robertson, M.D., A. L. Stanley, M.D., and C. J. Stringer, M.D.
Lansing, Michigan

FROM A SURVEY of the literature it appears that in the past there has been considerable reservation in the minds of the staffs of mental institutions and those interested in the modern treatment of tuberculosis, regarding the feasibility of attempting to carry out an adequate program of tuberculosis control in a chronic mental disease institution. On the part of the mental institution it seems that the objection has largely been the feeling that trained personnel and sufficient specialized facilities were not available within the limitations of its budget. From the standpoint of the tuberculosis people the reservation has been the lack of trained personnel in the resident staff of the mental institution to carry out routine treatment procedures, the lack of specialized equipment and facilities, and the difficulty in obtaining the co-operation of the patients, particularly with regard to the enforcement of a prolonged period of bed rest, which has always been considered to be the essential requirement in any program of treatment of pulmonary tuberculosis.

In the absence of encouragement and assistance from the tuberculosis men in the solution of this problem, the mental institutions have, for the most part, accepted the concept of tuberculosis control by means of isolation only. Segregation, in theory, can bring about a decrease in the spread of infection within the institution; however, isolation *per se* will not necessarily relieve the tuberculosis case load since it does nothing to arrest the infection in the individual. As isolation is usually practiced, it often results in the confinement in the isolation ward of many patients not actually having active tuberculosis, where the opportunity for contracting the disease is ideal. Conversely, there are usually many positive cases unrecognized on the general wards.

It is to be noted that in New York, where a tuberculosis control program consisting for the most part of segregation only has been vigorously pursued in the mental institutions over a period of eight years, there has been no appreciable change in the tuberculosis death rate among the patients.[1] They also note that the incidence of the disease among the employes on the tuberculosis wards is higher than in those not employed on these wards. Furthermore, in other places we note that patients, whose psychiatric condition would otherwise allow, have been denied discharge from the institution for an indefinite period due to active tuberculosis which might better have been treated concurrently with the mental disease.

In the New York report it is noted that in the last four years of the program the average number of claims for compensation for tuberculosis contracted by employes in these hospitals was twenty-six. It was our thought that if only the economic aspects were considered, the combined cost of claims and tuberculosis treatment for these employes would go far toward financing the procurement of sufficient services of specialized personnel to institute and carry out an effective treatment program, provided already existing facilities are used to the utmost.

In many instances superficial consideration of the problem leaves the impression that an extensive building program must be undertaken to provide additional facilities before a treatment program can be started. We will later show that frequently all that is needed is a reorganization of existing facilities, a determined attitude toward the problem and its solution, and a willingness to improvise where necessary. The inertia in this regard has been great.

It was, therefore, our purpose to look into the practicability of a program of tuberculosis control in a mental disease institution, utilizing active treatment as contrasted to the usual procedure of attempting control by isolation only.

The institution selected was the Michigan State Hospital for the criminally insane, where all the above problems existed. There the medical staff consisted of the superintendent and his staff of three psychiatrists (for a hospital of 1,100 patients), none of whom had previous training in tuberculosis. The staff expressed a keen interest

Dr. Isbister is tuberculosis control officer, Michigan Department of Health.

Dr. Robertson is medical superintendent, Ionia State Hospital, Ionia, Michigan.

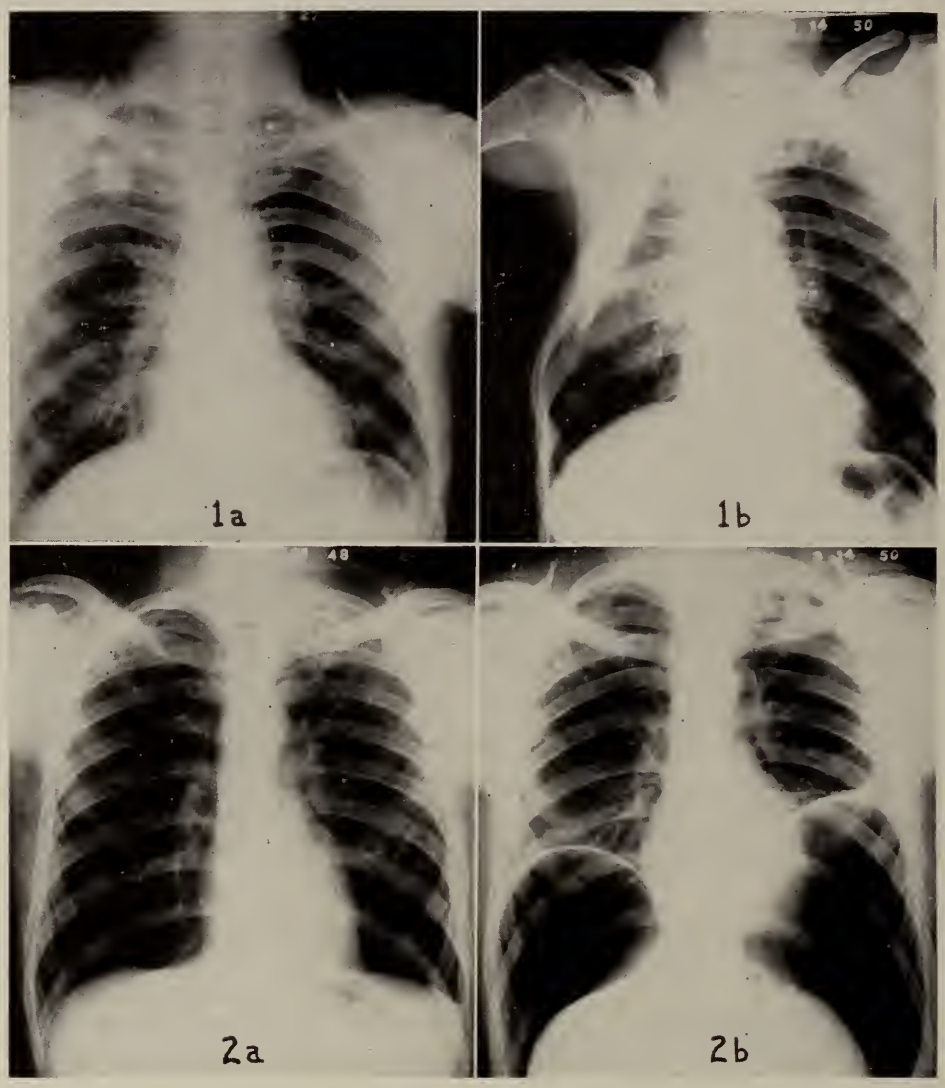
Dr. Stanley is assistant medical director, Ingham Sanatorium, Lansing, Michigan.

Dr. Stringer is medical director, Ingham Sanatorium, Lansing, Michigan.

and desire to assist in carrying out such a program in spite of the limited personnel.

Table I shows the results of an x-ray survey of the institution made by the State Department of Health, using a mobile 70 mm. photofluorograph. As a result of the survey and subsequent bacteriological examinations, inactive and nontuberculous cases were removed from the tuberculosis wards, making room for heretofore unrecognized cases, thus making much more effective use of the tuberculosis beds. There were forty-one cases to be fitted into a treatment program.

It had to be recognized that the initiation of a surgical program would be hampered by the lack of an anesthetist, a surgical nurse, the necessary instruments for thoracic surgery, and a physician skilled in preoperative and postoperative management and other routine procedures.



Figs. 1 and 2.

TABLE I. RESULTS OF SURVEY

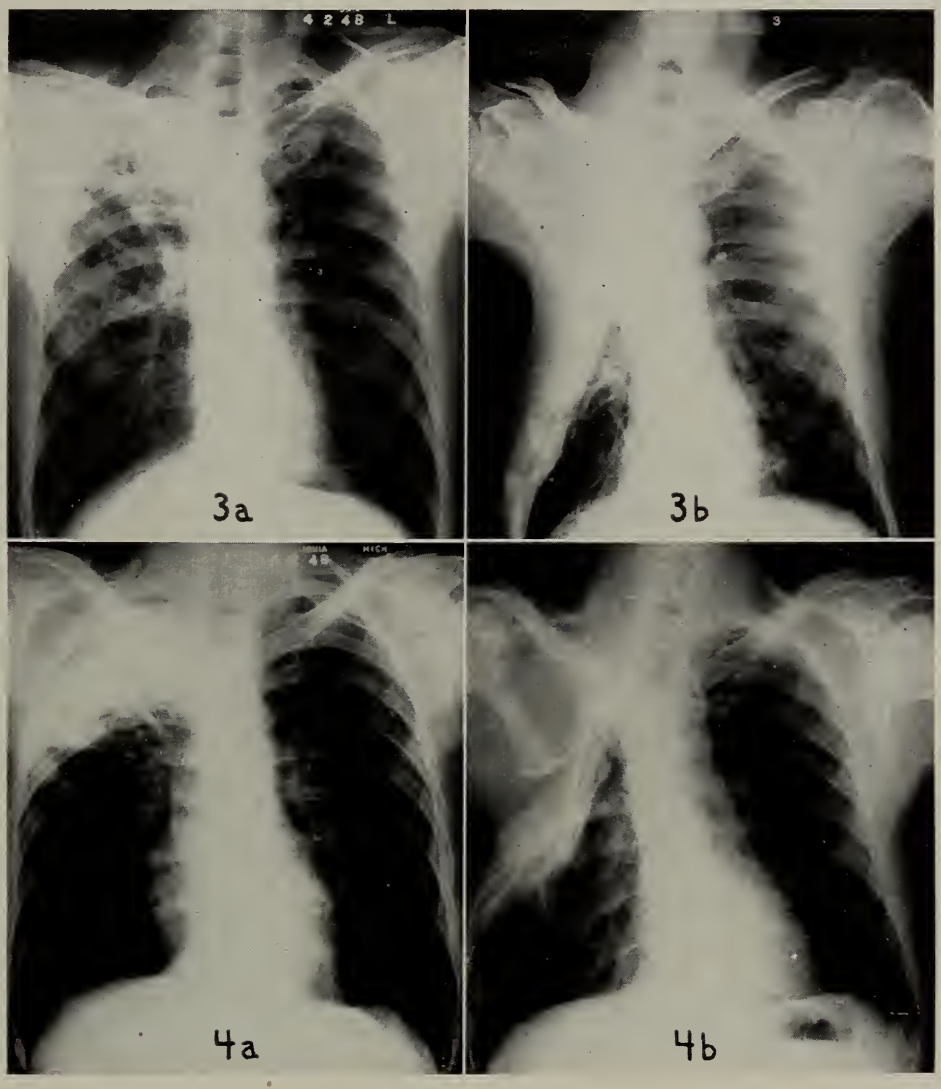
Total number of examinations		1,310
Total positive findings of survey		209
Significant abnormalities on re-examination		76
Nontuberculous		61
Tuberculous		72
Inactive		31
Active		41
Minimal	7	
Moderately advanced	23	
Far advanced	8	
Pleural effusion	2	
Tuberculoma	1	

The problem of anesthesia was readily solved by the purchase of an anesthetic machine and the training of one of the psychiatrists in the technique of intratracheal gas-oxygen-ether anesthesia. This young man was very much interested in becoming a member of the surgical team; he was trained in these techniques by the visiting anesthesiologist who accompanied the surgeon during the first few weeks of the program. A surgical nurse was a

member of the visiting team during the initial phase and carried out the training of the other operating room personnel. The instrument problem was solved by sterilized packs brought in by the visiting group. As soon as these persons were trained, outside requirements were reduced to a surgeon and a pack of specialized instruments.

The young psychiatrist was instructed in preoperative and postoperative management and the other treatment procedures. He was able to take over these duties within a short time—the progress of the patients being reviewed frequently with the visiting surgeon.

As the program got under way, eight cases were selected for treatment by thoracoplasty, one by pulmonary resection, one by extrapleural plombage, twelve by phrenic nerve crushing, and seven by phrenic nerve crushing and pneumoperitoneum. It soon became evident that bed rest could not be enforced and therefore could not be considered when planning treatment. It also soon became apparent that, in the absence of bed rest, little could be expected of diaphragm paralysis alone. Those cases spreading their disease on this type of treatment reversed the trend when pneumoperitoneum was added. The accompanying x-ray reproductions are representative of the therapeutic procedures used in this group of mental patients.



Figs. 3 and 4.

The experience with pneumothorax proved to be discouraging early in the program. It was found that considerably more skill was necessary in the management of this technique than was required for pneumoperitoneum. It was doubly difficult in unco-operative patients. Therefore, pneumothorax was discontinued as a form of treatment.

Results

This study covers a period from 1947 through 1949.

In considering the results of treatment it is again emphasized that none of these patients were on bed rest at any time during the period of treatment. Under these conditions, of the twelve patients treated by phrenic nerve crushing, seven spread their disease, three remained unchanged, and two improved. Of seven patients treated by phrenic nerve crushing and pneumoperitoneum, six cleared and stabilized their disease and one died of an unrelated cause. Of three patients started on pneumothorax, one developed a massive pleural effusion, which became purulent, and died, and the other two were soon given up because of difficulties in management. Eight patients with far advanced and moderately advanced tuberculosis were treated by thoracoplasty. In all eight cases the disease was immediately stabilized and the sputum converted. (One of this group has since been discharged from the institution.) One patient was treated by right upper lobectomy with a limited thoracoplasty for an expanding tuberculoma. This patient became excited on the first postoperative day, threw his underwater drainage jug at the attendant, and pulled out his intercostal drainage tube, causing a complete collapse of his remaining middle and lower lobes. A second tube was inserted through a trocar to effect re-expansion. A week later a small loculated empyema was noted, and this was controlled by daily aspiration of the contents and instillation of 200,000 units of penicillin for five days. One other patient was treated with extrapleural pneumonolysis followed by the filling of the space with mineral oil after a period of four weeks. This relieved the staff of the necessity of making weekly refills with air. This patient, too, is now well one year after treatment.

Streptomycin was given for a period of sixty days in conjunction with collapse procedures. Sputum was examined by culture and guinea pig inoculation. The number of active cases three years after the start of the program has been reduced to four, two of which are recent admissions.

Summary

1. The need for active treatment of pulmonary tuberculosis in mental institutions is pointed out.

2. The practicability of the application of modern treatment methods of pulmonary tuberculosis in mental disease institutions is demonstrated.

3. The results of treatment of pulmonary tuberculosis in mental patients can be expected to compare favorably with treatment in mentally normal patients.

4. The efficacy of thoracoplasty, phrenic nerve crushing and pneumoperitoneum, pulmonary resection, and extrapleural plombage is shown. Phrenic nerve crushing without pneumoperitoneum and pneumothorax were found to be impractical.

5. Good results can be expected in unco-operative patients without the assistance of bed rest. The suitability of a particular collapse procedure for a given case must take into consideration the co-operativeness of the patient. In the unco-operative patient thoracoplasty is, in general, the treatment of choice.

* * *

Prior to the time that the thoracic surgery group was called in consultation relative to tuberculosis control at this hospital,[2] the institution had made every effort to diagnose tuberculosis in all new admissions by x-ray and the usual laboratory tests. The entire population had also been surveyed and an attempt made to isolate those patients with the disease from the other patients in the institution. Isolation, bed rest, and pneumothorax had been tried with practically no decrease in the incidence of tuberculosis. This fact determined the request that experts in the treatment of tuberculosis be called in to formulate a more active campaign. The results of this more definitive and active campaign have been watched with a great deal of interest, and it is our personal observation that a great deal has been accomplished in the control of tuberculosis in this mental institution. This has been brought about through the study made by the consulting specialists.

The great stimulation to the psychiatric staff of this hospital to carry out the recommendations of the consultants has resulted in a more thorough knowledge of how to proceed in the handling of tuberculous patients in this institution. The favorable results have also increased the morale of not only the patients but also of all the employes, since they have become convinced that a vigorous campaign has been inaugurated in tuberculosis control and will continue to be followed in the future.

(Continued on Page 1281)

Narcoanalysis with Surital Sodium

By Earle O. Brown, Jr., M.D.
Ypsilanti State Hospital
Ypsilanti, Michigan

A NEW FIELD of narcoanalysis was opened with the introduction of the intravenous barbiturates. This paper reports the use of a newer barbiturate, surital sodium, as a narcoanalytic agent. Surital sodium,®* an ultra-short-acting thiobarbiturate, is the sodium salt of 5-allyl-5-(1-methylbutyl)-2-thiobarbituric acid. Evidence indicates that this drug is one and one-half times more potent than thiopentobarbital. Reports on the use of this drug as an intravenous anesthetic have recently been prominent in the literature. The pharmacology and toxicology of this agent have been extensively investigated by other workers.

In this study thirty-six narcoanalyses with surital sodium were conducted on fifteen patients. Six of the patients received two or more narcoanalyses, one receiving a total of eight injections. In all cases a 2.5 per cent solution was used. Interviews were considered successful in all but two patients. These two were rigid and evasive schizophrenics. The amount of drug required for interview varied extensively, even on repeated interviews in the same patient. The dosage necessary for sufficient relaxation to enable discussion of traumatic psychopathology varied from 50 to 375 mg.

The patients in this series were all borderline psychotics or schizophrenics in good contact. One paranoid psychosis was not apparent until the narcoanalysis revealed the well-covered thought processes. One borderline schizophrenic patient disliked intensely the injection of drug, complaining that it disturbed her contact with reality.

Because of its increased potency, yet shorter duration of action, several techniques of administration were feasible. An injection sufficient to produce relaxation could be given, administering more surital as necessary to maintain the same level of consciousness. It was also possible to give an amount adequate to produce sleep, then conduct the interview as the patient regained consciousness. Normally, the patient responded enough to talk in from one to five minutes. This held true provided the dosage given was the minimum amount required to produce unconsciousness. Surital was used in this series either as an adjunct to psychotherapy or as a tool to aid in the discovery of hidden dynamic factors in the patient's illness.

*Surital sodium is a registered trade-name of Parke, Davis and Co. The material for this study was supplied through the courtesy of the Department of Clinical Investigation, Parke, Davis and Company. This is the first publication on this subject.

Summary of Selected Cases

Case 1.—A single nineteen-year-old girl was transferred to the Ypsilanti State Hospital with a diagnosis of schizophrenia, catatonic type. A course of electroconvulsive therapy at the previous institution resulted in only moderate improvement. On admission she showed confusion, instability, agressiveness and partial contact with reality. During brief periods, however, she appeared to possess minimum insight, although was extremely blocked in psychotherapy.

An initial interview was conducted with sodium amytal. She became groggy and talked with a thick voice, although was able to verbalize some traumatic material. A total of 250 mg. of drug was administered. On the following day the patient recalled only vaguely what had transpired.

Narcoanalysis using surital sodium was then performed. Administration of 25 mg. of drug aroused complaints of dizziness, inability to concentrate, and slight nausea. No spontaneous material was available at this point as the patient was too concerned with her feelings of physical discomfort. This sensation was alleviated by administering a total of 125 mg., which resulted in grogginess and inaccessibility. She remained inaccessible for approximately five minutes before regaining consciousness and talking spontaneously regarding her feelings of insecurity, childhood difficulties, and sexual conflicts. During this revelation the patient cried bitterly and several times buried her face in her hands. On the following day the patient recalled clearly the preceding interview and added that the experience had been enjoyable because of a sensual feeling.

A week later another interview with surital was conducted on the same patient. Over a period of fifteen minutes 325 mg. of drug was administered slowly before the patient became groggy and complained of a heavy head and diplopia. She never lost consciousness but was partially inaccessible. Then the patient became restless, started to cry and move about, and dislodged the needle from the vein. For the next five minutes she was acutely uncomfortable, complained that she could not think, and reported that she felt as if she were going crazy. Following this restless period the patient again became calm and talked profusely for approximately one hour about childhood experiences and sexual guilts. The interview was terminated when the patient heard the dinner bell and reported that she was hungry. She arose and departed for the dining hall without any apparent

after-effects. During this interview the patient did not complain of nausea.

The third interview under surital was conducted the following week. On this occasion 250 mg. of drug was given, producing a five-minute sleep. On awakening, the patient conversed spontaneously regarding hostility toward her family and feelings of anxiety. Resentment toward a domineering and overprotective mother was revealed with an appropriate emotional response.

The fourth interview was conducted two days later, and 250 mg. of surital was again administered with grogginess ensuing. The patient again complained about her family and talked of sexual guilts. While revealing these traumatic feelings and experiences she was restless, cried and wrung her hands.

During the fifth interview conducted two weeks later, 125 to 150 mg. of drug was administered slowly, at which time sleep occurred quite abruptly. The patient regained consciousness three to four minutes later, was blocked and appeared ready to cry. She complained that no one loved her and that she was less adequate than other girls. To prevent an emotional outburst at this time, another 50 mg. of drug was administered rapidly, followed by light sleep. This procedure was repeated three times, using a total of 375 mg. of surital. She then became agitated, excited, thrashed about, and cried vehemently. She buried her face in her hands and reiterated that no one loved her. Further interview was not practical.

A week later the patient requested the sixth interview, stating that she felt tense. On administration of surital she cried, complained of a bad smell, and remarked that she felt slightly nauseated. This time 175 mg. was sufficient to produce a light sleep. The patient lightened abruptly, cried, admitted sexual guilts, and mumbled, "That's my father."

Two more interviews were conducted on this patient in conjunction with psychotherapy. The patient remembered most of what she had said during the drug interviews. She left the hospital three months after admission, much improved.

Case 2.—This twenty-nine-year-old divorced woman was admitted to the Ypsilanti State Hospital with a questioned diagnosis of psychoneurosis or early schizophrenia. She was dynamic, yet blocked and evasive on examination.

A preliminary interview, using 500 mg. of sodium amytal, produced only a minimal release of inhibited material. She was flat and unemotional in response to questioning. After ten minutes her voice became thick and unintelligible, and she gradually lapsed into sleep. The interview was discontinued when the patient did not regain consciousness in a reasonable length of time.

Several days later narcoanalysis with surital sodium was performed. Administration of 25 mg. of drug produced a marked response, and the patient complained bitterly that her head felt as if it had been hit with a sledge hammer. One minute was allowed to elapse before another 25 mg. was given, which resulted in excitement, restlessness, and acute discomfort. During the next fifteen minutes a total of 250 mg. was given. The patient was in constant excitement, although excellent contact. Despite a thick voice it was possible to understand that the patient was relating a traumatic love affair. Then without warning the patient abruptly became alert, complained of nausea, called the attendant by name, and requested an emesis basin. After cessation of the vomiting, the patient again became emotional and abreacted traumatic experiences for approximately one hour. On the following day the patient reported that she recalled everything which had transpired and stated that she felt much relieved.

The second surital interview was conducted three days later. No effect was noted until 100 mg. had been administered slowly, at which time the patient complained of nausea but no vomiting. She became groggy and uncommunicative for approximately three to four minutes. She complained bitterly of the heavy feeling in her head and stated that she would not yield to the drug. On awakening, the patient was relaxed, communicative, and talked coherently, although not spontaneously.

During the third interview there was no nausea, and 250 mg. of drug was given over a period of five minutes, producing a light sleep. On awakening, the patient discussed various reactions and fears she had experienced and showed a strong emotional reaction to this conversation.

Two other interviews were conducted on this patient with similar results. It was felt that the abreactions which the patient experienced were a definite benefit.

Case 3.—This patient was a twenty-six-year-old single woman admitted to the Ypsilanti State Hospital with a diagnosis of schizophrenia, mixed type. She was blocked and evasive to interview, and the dynamic factors in her illness had not been satisfactorily uncovered.

An interview was conducted with sodium amytal. Some inhibited material was released and a psychosexual conflict was discussed, although she remained flat and unemotional. A constant slow injection of drug was required to keep the patient ventilating. Eventually the voice became thick and unintelligible, followed by sleep.

Surital sodium was then used by the intravenous route. The patient complained severely that her head felt heavy and she inquired if she were being poisoned. An injection of 75 to 100 mg. produced a light sleep which lasted about five minutes. In response to questioning, the patient then talked profusely and emotionally about difficulties at home and psychosexual conflicts. At one point the patient cried when talking of her mother. At another point when discussing a lover, she smiled and appeared happy and content. The interview lasted approximately one hour, following which the patient arose and walked unaided to the cafeteria. Throughout this interview it had been necessary to administer additional drug from time to time to keep the patient in a communicative state. The material obtained from the surital interview was not essentially different from that obtained under the influence of sodium amytal. It was, however, quite noticeable that an emotional response accompanied the interview with surital.

Discussion

This drug appears to warrant inclusion in the family of barbiturates useful in narcoanalysis. Its properties are somewhat different and in selected cases may have advantages over other agents. Because of its short action, most of the patients are able to walk unassisted at the close of the interviews. This would offer an advantage in out-patient practice as it would eliminate the period of sleep which frequently follows the use of other agents. Because of the short activity and relative absence of after-effects, it is possible to follow a narcoanalysis with a psychotherapeutic session during a time when the patient is relaxed.

Emotional outbursts were a frequent occurrence, and nine patients were felt to have experienced abreactions consisting of tears, laughter, and phallic experiences. No untoward reaction to the drug occurred during any of the interviews with the exception of occasional nausea or vomiting. It is felt possible that the nausea or vomiting was at a psychic level and represented resistance. Several who experienced nausea or vomiting in the initial interviews failed to show this symptom later, corresponding with improvement in the patient's mental condition. Another possible explanation for the nausea may be related to a bad taste and smell of which most of the patients complained. This unpleasant odor was also apparent to the author, although he has found no information which explains it.

Summary

1. Thirty-six narcoanalyses were conducted using surital sodium.

2. Surital sodium is a new ultra-short-acting thiobarbiturate which is the sodium salt of 5-allyl-5-(1-methylbutyl)-2-thiobarbituric acid.

3. Because of its short activity it is possible to conduct interviews as the patients regain consciousness as well as during the induction period.

4. Because of its short activity the patient is usually able to walk unaided and with minimum after-effects at the close of the narcoanalytic interview.

5. The drug appears to be relatively safe and no side effects were noted other than the occasional occurrence of nausea and vomiting.

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SILICOSIS ENCOUNTERED AMONG AUTOMOBILE WORKERS

(Continued from Page 1250)

odic examinations were that there was no provision for supplying the employee with a complete report of his condition *unless* pneumoconiosis was found, and that employees were being discharged when indications of pneumoconiosis were present. In addition, the Supreme Court felt that the requirement was discriminatory because it was applicable only to "dusty trades" workers and not to all employees, and also that this act called for a complete physical examination when actually all that was required to carry out the intent of the amendment was a chest x-ray examination. It does not seem to us that these objections are insurmountable, and in view of the medical desirability of periodic examination of people working in silica atmospheres, a legal compromise could be effected.

Summary

1. Etiologic and clinical data in 100 automobile workers with silicosis are presented in tabular form.

2. Some of the problems encountered among this group relative to diagnosis, estimation of disability, and desirability of periodic examinations are discussed briefly.

* * *

The clinical material was derived from the clientele of the Health Institute, Detroit, Michigan. We are grateful to Mr. Lloyd Utter for assistance in this study.

The Diagnosis and Treatment of Chronic Diseases of the Small Intestine

Abstract

By Everett D. Kiefer, M.D.

Boston, Massachusetts

THE CLINICAL signs from which the physician may suspect small intestinal disease are related to disturbed motility of the intestine, impaired digestion and absorption, loss of blood and infection.

The physical examination can be negative but may reveal dilated intestinal loops, tumor masses, draining sinuses and clubbing of the fingers and toes and other signs of chronic malnutrition.

The most important and useful means of confirming a diagnosis of small intestinal disorder is the x-ray. Serial films taken at half hourly or hourly intervals for from six to nine hours after a barium meal constitute the usual method of examination. While it is possible to diagnose pathologic changes in the mucosa, intestinal wall and mesentery with a fair degree of accuracy, it must be realized that some small lesions may escape detection unless the studies are made during an obstructive attack. It is a wise plan, therefore, in cases of suspected intermittent obstruction of the small intestine to arrange for x-rays to be taken during an attack of pain. Collections of gas or gas and fluid in distended loops of intestine are often demonstrated and indicate obstruction which should be relieved by appropriate surgery.

Diverticula of the small intestine are usually asymptomatic but occasionally become infected and result in complications such as obstruction, perforation and hemorrhage.

Meckel's diverticulum is a congenital diverticulum which may cause gross hemorrhages from the intestine. This is more likely to occur in children under fifteen. In adults the most common complications are inflammation and intussusception.

Both benign and malignant tumors are comparatively rare in the small intestine and for this reason they may go unsuspected for some time after the onset of symptoms. Cancer of the small intestine has a bad prognosis because it metastasizes early and tends to recur and grow rapidly within a few months after surgical removal.

Benign tumors are more important because they may cause a fatal outcome, usually by hemorrhage, but, on the other hand, if diagnosed and removed, a satisfactory cure results.

In cases of frequent recurrent hemorrhages, the source of which is obscure, the small intestine may be studied by passing a Miller-Abbott tube throughout the full extent of the intestine so that samples can be taken at every level for tests for the presence of blood.

Regional ileitis, also known as cicatrizing enteritis, is the most common chronic inflammatory disease primary in the small intestine. It is predominantly a disease of older children and young adults. The cause of this disease is unknown.

The most common symptoms are abdominal pain, diarrhea, malnutrition, anemia, abdominal tumor mass and fistula either in the abdominal wall or in the perianal region.

The x-ray is the most important diagnostic procedure.

The pathologic changes in the intestine are tremendous edema and ulceration of the mucosa, thickening and scarring of the wall of the intestine. Obstruction of the lumen is a frequent complication. Although the disease is known as ileitis, it also involves the jejunum.

Tuberculosis of the intestine is usually a complication of active pulmonary tuberculosis. It starts as an ulcerated condition of the terminal ileum and proximal colon. It eventually progresses to a granulomatous stage with a palpable mass, signs of intestinal obstruction and sinus formation.

Impairment of the absorptive function of the small intestine, the cause of which is unknown, appears to be the underlying pathogenesis of a group of deficiency diseases, which includes tropical and nontropical sprue, and some cases of celiac disease and idiopathic steatorrhea. The absorption of fat and the fat-soluble vitamins suffers the most and produces the most outstanding clinical effects.

In all chronic deficiency states there are pronounced x-ray changes in the small intestine due to defects in the intrinsic neuromuscular mechanism resulting in loss of tone.

Treatment

The treatment of that general classification of chronic small intestinal disease that gives rise to

From the Department of Gastroenterology, the Lahey Clinic.

Presented at the Fifth Annual Michigan Clinical Institute, Book-Cadillac Hotel, Detroit, March 14, 15 and 16, 1951.

predominantly mechanical disorders, that is adhesions, tumors and diverticula, is entirely surgical.

The management of chronic inflammatory disease is a combination of both medical and surgical measures, while the therapy of impaired function is entirely medical.

It must be admitted that the management of regional ileitis, whether medical, surgical or a combination of both, is at present far from satisfactory.

Cases with localized involvement and no complications should be given a trial on medical therapy. Very extensive involvement so that complete extirpation of the disease might leave less than the minimum of small bowel necessary to support life may also be considered an indication for conservative treatment.

There is no specific treatment for regional ileitis. The principle of nonspecific supportive measures which constitute the medical management are bed rest for prolonged periods, adequate nutrition, supplemental vitamins, control of intestinal hypermotility, correction of the systemic effects of the disease by iron medication and blood transfusions. The use of antibiotics is an important part of the treatment, but these drugs probably are not specific and are effective only upon secondary invaders.

The use of ACTH is still experimental. It is expected that its effectiveness in regional ileitis will be similar to that in chronic ulcerative colitis, which has proved to be only a nonspecific supportive measure which in some cases helps to control the activity of the disease.

Experience with seventy cases of regional ileitis treated with a nonspecific supportive regimen has shown satisfactory relief and control of the disease in only 40 per cent.

The indications for surgical treatment of regional ileitis are intractability on medical treatment and the presence of complications which are obstruction, fistulae and hemorrhage.

At the Lahey Clinic radical resection of all of the diseased intestine along with its mesentery has been preferred to the side-tracking or exclusion operations of enteroenterostomy and enterocolostomy. It is believed that the operative mortality is no greater and the late postoperative complications are fewer.

Resection and enteroenterostomy are only therapeutic aids which may help the body overcome the disease. Neither operation can be considered a cure. In 34 per cent of 102 patients who had been subjected to resection, recurrent disease appeared.

The failure of surgical resection to effect a cure in one-third of the cases and the persistent recurrences even after second or third operations are truly discouraging, yet many of these cases eventually turn out well, apparently because of the reduction of the extent of the disease to a point that it can be arrested by natural resistance. It is in these cases that combined surgical and medical management is important.

Since the pathologic process in regional ileitis is largely an inflammation of lymphoid tissue, there is a considerable rationale for the use of x-ray therapy over the abdomen. Some favorable reports have come from the Mayo Clinic, but our experience has been considerably less impressive. It is being used mainly in cases of postoperative recurrence.

In general, the management of tuberculosis enteritis is similar to that of regional ileitis. In the early ulcerative, nonobstructive stage, medical treatment is indicated. This consists of bed rest, low residue, bland, high vitamin diet and antibiotics, chiefly streptomycin.

When the granulomatous tuberculous lesion has developed and causes obstruction, perforations and abscesses, surgical resection is indicated. Since the lesion is usually a secondary one, the therapy must be individualized and depends largely upon the clinical status of the patient and the prognosis of the pulmonary disease.

In the treatment of sprue and sprue-like conditions the problem is to increase the available calories, correct the nutritional deficiencies that exist and improve the absorption of all types of food, particularly the fats.

Carbohydrate in the form of sugars instead of starch may help to increase the available calories. Keeping the fat content low and the amount of roughage limited tends to slow up motility and thereby helps absorption. High doses of vitamins, particularly the fat-soluble ones, A and D, in water-soluble preparations, are indicated. Folic acid and crude liver extract appear to be effective. A high protein diet, transfusions of blood or plasma or human albumin are used to correct anemia and hypoproteinemia with nutritional edema.

The use of an emulsifying agent such as tween 80 is worth a trial, but the clinical results are variable.

Sixth Annual

MICHIGAN CLINICAL INSTITUTE

Grand Ballroom, Book-Cadillac Hotel, Detroit

March 12-13-14, 1952

Time	Wednesday March 12, 1952	Time	Thursday March 13, 1952	Time	Friday March 14, 1952
A.M. 8:30- 9:00	Registration Exhibits Open	A.M. 8:30- 9:00	Registration Exhibits Open	A.M. 8:30- 9:00	Registration Exhibits Open
	Six SURGICAL Subjects		Five INTERNAL MEDICINE Subjects	9:00- 9:20	Six HEART Subjects
9:00- 9:20	Reader J. Hubbell, M.D. Kalamazoo	9:00- 9:20	James R. Rogin, M.D. Detroit		Franklin D. Johnston, M.D. Ann Arbor
9:20- 9:40	Robert J. Bannow, M.D. Pontiac	9:20-10:00	Oscar Swineford, Jr., M.D. Charlottesville, Va.	9:20- 9:40	Conrad Lam, M.D. Detroit
9:40-10:00	Charles H. Frantz, M.D. Grand Rapids			9:40-10:00	Gordon B. Myers, M.D. Detroit
10:00-11:00	Intermission to View Exhibits	10:00-11:00	Intermission to View Exhibits	10:00-11:00	Intermission to View Exhibits
11:00-11:20	Truman G. Blocker, Jr., M.D. Galveston, Texas	11:00-11:20	S. G. Meyers, M.D. Detroit	11:00-11:20	Manes S. Hecht, M.D. Detroit
11:20-11:40	Clarence E. Umphrey, M.D. Detroit	11:20-11:40	Garfield G. Duncan, M.D. Philadelphia, Penn.	11:20-11:40	Sibley W. Hoobler, M.D. Ann Arbor
11:40-12:00	Edward J. McCormick, M.D. Toledo, Ohio	11:40-12:00	Frank D. Johnson, M.D. Flint	11:40-12:00	Panel Discussion on "The Flicker Photometer" M. S. Chambers, M.D., Flint, and F. D. Johnston, M.D., Ann Arbor
P.M. 12:00- 1:45	Rehabilitation Luncheon Howard A. Rusk, M.D. New York, New York	P.M. 12:00- 1:45	R. S. Sykes Lecture Luncheon Lauren V. Ackerman, M.D. St. Louis, Mo.	P.M. 12:00- 1:45	Michigan Heart Assn. Luncheon Samuel A. Levine, M.D. Boston, Mass.
	Two OBSTETRIC Subjects Three PEDIATRIC Subjects		Six MISCELLANEOUS Subjects		Six METABOLIC DISEASE Subjec
2:00- 2:20	Harry A. Pearse, M.D. Detroit	2:00- 2:20	Frank H. Bethell, M.D. Ann Arbor	2:00- 2:20	Lloyd T. Iseri, M.D. Detroit
2:20- 2:40	Norman F. Miller, M.D. Ann Arbor	2:20- 2:40	Carl F. List,M.D. Grand Rapids	2:20- 2:40	Charles F. Wilkinson, M.D. New York, New York
2:40- 3:00	Frederick S. Leeder, M.D. Lansing	2:40- 3:00	Jay A. Myers, M.D. Minneapolis, Minn.	2:40- 3:00	Robert L. Schaefer, M.D. Detroit
3:00- 4:00	Intermission to View Exhibits	3:00- 4:00	Intermission to View Exhibits	3:00- 3:30	Final Intermission to View Exhibit
4:00- 4:20	Wyman C. C. Cole, M.D. Detroit	4:00- 4:20	Warren B. Cooksey, M.D. Detroit	3:30- 4:00	Raymond O. Muether, M.D. St. Louis, Mo.
4:20- 5:00	Panel on (a) Deviated Child; (b) Problems of Newborn; (c) Convulsive Status of Childhood Moderator: Norman Westlund, M.D. Saginaw Martha R. Westerberg, M.D. Neurologist Ann Arbor Ralph D. Rabinovitch, M.D. Psychiatrist Ann Arbor Charles G. Jennings, M.D. Pediatrician Detroit	4:20- 4:40	Ivan B. Taylor, M.D. Detroit	4:00- 4:30	(To be announced)
		4:40- 5:00	J. Lewis Dill, M.D. Detroit	4:30- 5:00	Franklin M. Hanger, M.D. New York, New York
					Institute Ends at 5:00 p.m.
6:30	Dinner Hour		Dinner Hour		NO REGISTRATION FEE AT MICHIGAN CLINICAL INSTITUT
	NO SCIENTIFIC MEETING WEDNESDAY EVENING		NO SCIENTIFIC MEETING THURSDAY EVENING		

Topside Medical Public Relations at Mackinac

On a day in June, 1822, a shot was fired in the American Fur Company's store on Mackinac Island. Alexis St. Martin, an eighteen-year-old French Canadian, was struck in the lower left thorax. The shot tore a hole through the diaphragm and into the stomach. This shot set the stage which led to most important discoveries in the physiology of digestion.

Dr. William Beaumont, an army surgeon stationed at Mackinac Island Fort at the time, cared for the wounded man, and later conducted many experiments through the resultant gastric fistula. The discoveries made by Dr. Beaumont were so accurate that very little knowledge of the basic physiology of digestion has been added since that time, one hundred and twenty-nine years ago.

The American Fur Company store in the process of time became converted to a residence, now known as the Early House. Through the efforts of The Council of the Michigan State Medical Society and its Beaumont Memorial Committee, funds were obtained for the purchase of this house for the Mackinac Island State Park Commission. This State Commission cannot spend funds for its restoration but could and will care and maintain a Beaumont Memorial in perpetuity.

Therefore, the House of Delegates of the Michigan State Medical Society at its 1951 meeting resolved that the Old American Fur Company store be restored as a memorial to William Beaumont within this beautiful State Park. This can be accomplished with an average contribution of ten dollars from each member of this Society.

Every doctor of medicine in this State of Michigan should take a personal pride in the restoration of this medical landmark. Hundreds of thousands of people will visit it every year for hundreds of years to come.

A suitable metal plaque, with the inscription that this building was restored by Michigan's Doctors of Medicine, would produce a feeling of gratitude and good will toward the medical profession among all the people of these United States.

Otto O. Becke

President, Michigan State Medical Society

President's



Message

Editorial

MICHIGAN DEPARTMENT OF SOCIAL WELFARE

THE MICHIGAN Department of Social Welfare is one with which most of our members have dealings more or less frequently, but of which the members know very little. The Commission Chairman is Leo G. Christian, M.D., of Lansing. The Commission, among its many functions, handles welfare cases which are covered by these four categories: Old Age Assistance (in August 1951, 95,127), Aid to Dependent Children (81,-255), Aid to the Blind (1,842), and Aid to the Totally and Permanently Disabled (847), covering almost 200,000 persons. The fourth group has been in operation less than a year. There is no definite information how many there will be eventually.

The Department makes monthly cash grants to the recipients estimated to cover the cost of food, clothing, shelter and medical care. There is a ceiling fixed on old age assistance by state law. Consequently, the Commission has fixed similar ceilings on the other three categories. The Department has attempted to get the old age assistance ceiling changed so as not to include medical care, but so far without success.

Methods of paying for medical services to beneficiaries of this department have been criticized by our members. They are not well understood. Under the law in effect up to September 28, 1951, benefits had to be paid to the beneficiary in cash. Basic costs are determined and are fixed, and if not over the ceiling are paid to the welfare recipients each month. If the person is ill, his social case worker sends him to the doctor of his choice, who must fill out a blank estimating how much the care will cost per month. This is added to the basic amount received, if under the ceiling, and the welfare client is expected each month to take that money to his doctor. These authorizations are for from three to twelve months.

The Commission has not been satisfied with the procedure for several reasons. Some beneficiaries use this method to get additional allowances, going to a doctor, asking him to certify to the need and amount of medical care, not getting that care, but using the money. Others fail to pay the doctor, or make only one or two payments. Some go to the doctor only when their authorization must be renewed. Others do not get the care they should, but use the money.

The doctors do not like the plan because after filling out a blank, they trust to luck and an honest patient to get their money; this is especially irksome when payment comes to the patient in small driblets.

Effective September 28, 1951, the law has been changed allowing the State Department of Social Welfare "to contract for either the cost of hospital or medical care, or both for recipients, and pay for the cost directly to the contractor." This seems to be a very just and adequate way out, if the doctor could be paid directly. But that is not the case. The doctor is not a contractor. The Department feels, however, that it could contract with a County Medical Society, or the Blue Shield, as we suggested in September.

The Department is conscious of the fact that certain patients are not getting adequate care, and cannot under the present ceilings. Until costs and the load can be determined, they are not willing to contract for the complete coverage of the state similar to the Veterans Administration Home Town Medical Care plan.

We believe the members of the Michigan State Medical Society, the doctors who must and do care for these people, should have a complete exposition of the present working. With a better understanding, our members and the department may work much more harmoniously.

Views of the Department

The members of the Michigan State Medical Society have been increasingly interested and helpful to the county bureaus of social aid throughout the state in learning about and making suggestions concerning old age assistance, aid to dependent children, aid to the blind, and aid to the disabled. This is gratifying to the Department of Social Welfare because just as social workers need to know more about medical problems from the point of view of the doctor, so does it appear to me highly

important for doctors to understand many of the administrative problems faced in the field of social welfare. While this does not mean that we hope to turn doctors into social workers any more than it means that social workers should attempt to invade the medical field, still there are many opportunities for the elimination of patient and client misunderstandings made because of a prior misunderstanding of the medical or social work counsellor.

Dr. Haughey has invited me to preview the editorial on the State Department of Social Welfare appearing in this issue of THE JOURNAL, and I find that it provides two excellent illustrations of instances where suggestions and understanding will be helpful. The first is—Who are the "permanently and totally disabled" for whom monthly grants under the new assistance program are now being made? We worked at a definition for many months in order to establish one which would satisfy the limitations of federal law and yet at the same time not limit us to the completely hopeless cases. The definition finally accepted by the federal government is this:

"Medical and other evidence establishes (a) that the applicant has a physical or mental impairment, or both, which cannot be corrected in the foreseeable future, and (b) that by reason of such impairment he is unable, without the help of another person, to carry on the minimum of activity essential to daily living as determined by the State Social Welfare Commission. If treatment which will correct the condition is available within the state, the individual is ineligible. The minimum of activity essential to daily living consists of eating, dressing and personal hygiene. A bedfast individual obviously is unable to perform any of these operations without the help of another person. An individual who is not bedfast but who requires the help of another person to perform all of the minimum essential activities must in addition be unable to leave his home except with the assistance of another person."

As social welfare administrators, we believe it inadvisable at the beginning of the program to be more liberal since we do not know how many persons may wish to prove themselves disabled. Medical doctors with their more intimate knowledge not only of hypochondria in its various forms but also of the cases of the physically disabled suspected by the layman to be malingering, surely will be able to assist us in this program and its definition as we go on with it. I shall be very much interested to have observations of individual physicians about it based on the cases brought to their attention for a diagnosis by the local bureau of social aid.

The other illustration in the editorial is in Dr. Haughey's suggestion that, under present policies, the social worker "sends" the patient to the doctor of his choice and that the welfare client is "expected" each month to take the money added to the grant to the doctor. I suppose that most of the general public and a great many physicians do think of the bureau social workers as persons who "send" welfare clients to the doctor and who "expect" them to pay. Actually, the old age assistance, aid to dependent children, and aid to the blind programs were established some fifteen years ago in the hope that they would prove a more democratic, unregimented method of dealing with the impoverished to the end that the individuals affected would not become psychologically dependent on social workers, as well as financially dependent on the government. It, therefore, was written into the law that the grant was to be a money payment without any strings tied to it. While the amount of the grant is very carefully determined on the basis of the best evidence we can establish of the amount of need for the basic requirements, less income, we give no instructions or orders regarding the use of the money. We surely hope that each client will be a good manager, pay his debts and lead as nearly a normal life as possible with so small an income. For the most part, he does at least as well as the average person not on relief.

However, experience has proved that in many cases the doctor is not paid for medical care granted, and in many other cases needed medical care has not been sought by the client, although an amount has been included in the grant to make it possible for him to pay for it. This is clearly unfair not only to the doctor and the taxpayer but also to all the clients (since it represents an unequable division of available funds). To correct this we are, with some reluctance, moving in the direction of direct payment for medical care even though it means establishing some government control over the individuals. Here again we will need the help of the medical profession in working out realistic policies which will preserve as much freedom to the individual as possible while saving tax funds, providing needed medical care, and getting to the doctor his just payment.

W. J. MAXEY

PRESIDENT-ELECT

READER J. HUBBELL, B.S., M.D., F.A.C.S., of Kalamazoo, was selected as President-elect of the Michigan State Medical Society at the meeting of the House of Delegates, September 26, 1951. Doctor Hubbell is a graduate of Northwestern University, 1918, and of the Northwestern University Medical School, 1923. He served his internship at Wesley Memorial Hospital, Chicago, 1922-24. He had a residency in the B. A. Thomas Urologic Clinic in Philadelphia, 1929-30, became a Diplomate of the American Board of Urology in 1936 and a Fellow in the American College of Surgeons in 1944. He served in World War I, as a private S.A.T.C.



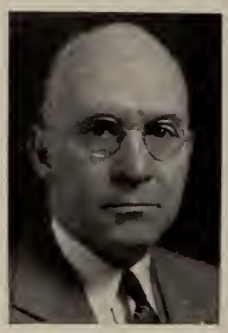
R. J. Hubbell, M.D.

Doctor Hubbell is a member of the Torch Club in Kalamazoo, president in 1938-39, member of the Rotary Club, president in 1938-39, and is a member of the Detroit Urological Society, of which he was president in 1935. He was Chief of the Surgical Section, Bronson Hospital, 1950, Chairman of The Council of Michigan State Medical Society, 1950-51, and Chief of Staff, Bronson Hospital, 1942-44. He has been a member of the Michigan State Medical Society and the American Medical Association since entering practice. Doctor Hubbell has always been very active in medical affairs with special attention to Sociologic problems.

THE COUNCIL

L. W. HULL, M.D., of Detroit, was re-elected Councilor of the First District, and J. D. MILLER, M.D., of Grand Rapids, was re-elected Councilor for the Fifth District. J. S. DE TAR, M.D., of Milan, resigned as Councilor of the Fourteenth District to become AMA Delegate.

RALPH W. SHOOK, M.D., of Kalamazoo, was elected Councilor for the Fourth District to replace Doctor Hubbell. Doctor Shook took his pre-medical and medical training at the University of Michigan, graduating as M.D. in 1927; he interned at Grace Hospital, Detroit, Michigan, in 1927-28. He served in the U. S. Army from July, 1942, to December, 1945; attained the rank of Lieutenant Colonel. He was at Camp Wolters Station Hospital (Texas) in 1943; then at the 96th General Hospital (ETO England); Chief of Surgery, December, 1943, to July, 1945; separated in December, 1945.



L. W. Hull, M.D.



J. D. Miller, M.D.



J. S. DeTar, M.D.



R. W. Shook, M.D.

Doctor Shook has been a member of the Michigan State Medical Society and American Medical Association since entering practice, is on the Surgical Staff of Borgess Hospital and Bronson Hospital of Kalamazoo. He was Secretary of the Borgess Hospital Staff, 1948-49, and Vice Chief of Surgery, 1950-51. He has been a member of B.P.O.E. since 1928; member of the Masonic Lodge, A.F. & A.M. No. 258, since 1924; Exchange Club of Kalamazoo since 1935 and a charter member of the Kalamazoo City Farmers Club.

Doctor Shook practiced in Lake City two years before going to Kalamazoo in 1930.

HAROLD H. HISCOCK, M.D., of Flint, was elected Councilor for the Sixth District. He graduated from Wayne University in 1924; served

his internship at Hurley Hospital, Flint, in 1929 and residency at Receiving Hospital, Detroit, 1929-1931. He served in the United States Navy as Commander from March, 1942, to January, 1948.

Doctor Hiscock is a member of the Flint Golf Club, Rotary Club and Elks Club; is a member of the Michigan State Medical Society; the American Medical Association; the American Urological



H. H. Hiscock, M.D.



B. M. Harris, M.D.

Association, and American College of Surgeons. He is a Past President of the Genesee County Medical Society; Diplomate of American Board of Urology; Chief of Urological Department, McLaren General Hospital, and Chief of the Urological Department, St. Joseph Hospital, of Flint.

BRADLEY MASON HARRIS, M.D., of Ypsilanti, was elected Councilor for the Fourteenth District to replace Dr. J. S. De Tar who resigned. Doctor Harris graduated from the Michigan State Normal College in 1927; University of Michigan Medical School in 1931. He interned at Blodgett Memorial Hospital, Grand Rapids; residency, Long Island Hospital, Boston, and took postgraduate work in Toledo and Ann Arbor. He served as Commander in the United States Navy in 1942-45.

Doctor Harris is a member of the Michigan State Medical Society, American Medical Association, American Legion and the Kiwanis Club.

The Council elected new officers on September 26, 1951: Chairman, William Bromme, M.D., Detroit, Councilor for the Eighteenth District; Vice Chairman, L. W. Hull, M.D., Detroit, First District; Chairman Publication Committee, F. H. Drummond, M.D., Kawkawlin, Tenth District; Chairman Finance Committee, W. S. Jones, M.D., Menominee, Thirteenth District; Chairman County Societies Committee, D. Bruce Wiley, M.D., Utica, Fifteenth District.

ON THE RUN . . .

Vascular disease is more frequent and severe in diabetics in whom the disease begins in the first or second decade and who survive more than fifteen years than in those with an onset in middle life.

• • •

In prostatic cancer without metastasis, castration and estrogens appear to have equal therapeutic value but the two combined promote increased survival.

• • •

Needle biopsy of the liver is contraindicated in small livers because of possible bowel perforation and in obstructive jaundice because of risk of establishing a bile fistula and bile peritonitis.

• • •

Myocardial infarction has a 50 per cent higher mortality rate in women than in men.

• • •

The correct dose of digitalis is the smallest amount necessary to produce the desired effect, not that which just fails to produce toxicity.

• • •

Failure to gain weight in post-gastrectomy patients may be due to their tendency to eschew fats and to their restricted capacity for foods.

• • •

When obstructed, the large bowel may become tremendously distended with relatively little distention of the small bowel.

• • •

Multiple attacks of pain simulating gall-bladder colic may occur in portal cirrhosis.

• • •

Survival time of anoxic brain cells may be prolonged by anesthetic and analgesic drugs which depress the oxygen demand of the central nervous system.

• • •

Exchange transfusions with blood from female donors appears to be the best treatment for erythroblastosis fetalis.

• • •

Depressed atrophic areas at the site of repeated insulin injections may regain normal contour by resuming the injections, after an interval of rest, into the same area.

• • •

Congenital atresia of the bowel in the newborn is characterized by absence of cornified cells in the meconium.

• • •

Transient ascites, jaundice and impaired liver function may develop following hematemesis because of the lowered portal pressure and the shock-induced fall in arterial pressure.

• • •

Irradiation for abnormal uterine bleeding does not protect against later genital cancer.

• • •

Intravenous normal saline is temporarily useful in parathyroid poisoning through its diluting effect.

Prepared by W. S. Reveno, M.D.

—Good Health is the M. D.'s Profession

—Good Health is Everybody's Business

MICHIGAN HEALTH COUNCIL

Presents

"A Parade of Projects"

in

The Field of Health

From a basic idea conceived by the Michigan State Medical Society, the Michigan Health Council has gained stature during the past two and one-half years.

With full co-operation from Michigan Hospital Service, Michigan Medical Service and the Michigan Hospital Association, its expanded activities program—launched in February, 1949—has attracted the interest and support of twenty-one additional state level health organizations which now make up the membership of the Michigan Health Council.

Confronted early with the problem that adequate tools to build a total program were nowhere to be found, it was necessary for MHC to devote a portion of its program to the creation of the necessary implements to propel its program forward.

One result of this pioneering attitude has been the impressive "Parade of Projects" which has brought recognition to Michigan in the field of the health council work among the States.

Marching resolutely from one project to another, and frequently finding itself in the midst of several projects simultaneously the parade has been lengthened constantly.

The "band" preceding our parade has just passed. Sit back comfortably now in our mythical reviewing stand as the "PARADE OF PROJECTS" passes by. You will recognize many of them; some may be new to you; viewed together they present a formidable procession:

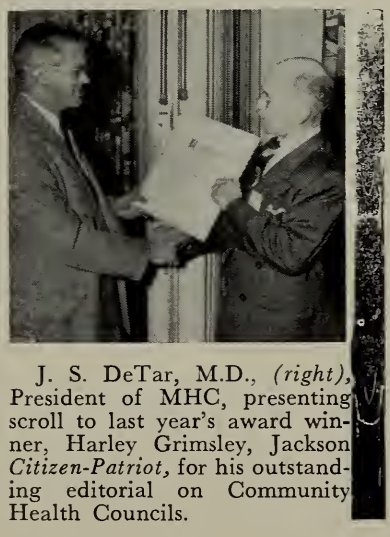
Organization of additional *Community Health Councils* (26)
Reorganization, reactivation, or expansion of other *Health Councils* (10)
Encouragement of *M.D. Participation* in Community Health Councils
Compilation of *MHC Directory*
Production of *MHC Film*—"The Picture of Health"
Expansion of *Annual Michigan Rural Health Conference*
Enlargement of *MHC Bulletin*
Introduction of *Community Health Council News*
Creation of *Working Committees*
Exploration of *Comprehensive Annual Physical Examination*
Program of *Annual Awards*
Expansion of *Reference Library*
Collaboration with Michigan Heart Association in *Cardiac Housewife Project*
Representation and participation in local, state and national *Health Studies, Surveys, Conferences, Committees* and *Panel Discussions*
Extension of *Public Relations Program* at community level
Functioning of various MHC services:
Health Information Clearing House
Film Information Service
Speakers' Bureau
Health Materials Information Center

While you were reviewing the procession, the photographer, from his position in the press box, caught some interesting shots. Graphically recorded below are some highlights from the "Parade of Projects."



MICHIGAN RURAL HEALTH CONFERENCE–DISCUSSION GROUP

The Annual Michigan Rural Health Conference originated by MSMS in 1947, has expanded steadily in scope and importance. Working closely with the Michigan Foundation for Medical and Health Education, Inc., which took over financial sponsorship in 1949, the Fifth Annual Conference will be co-sponsored by ninety-seven other Michigan health organizations when it convenes on the University of Michigan Campus, Ann Arbor, on January 11, 12, 1952. Michigan Health Council has been given the responsibility and privilege of planning and staging the Conference.



J. S. DeTar, M.D., *(right)*, President of MHC, presenting scroll to last year's award winner, Harley Grimsley, Jackson *Citizen-Patriot,* for his outstanding editorial on Community Health Councils.

AWARDS

M.H.C. now sponsors three Annual Awards:

1. For the outstanding news editorial or article on community health accomplishment.

2. An award for the outstanding Community Health Council Project.

3. A Junior Chamber of Commerce Award for the most outstanding community health project performed by a "Jay-Cee" chapter.

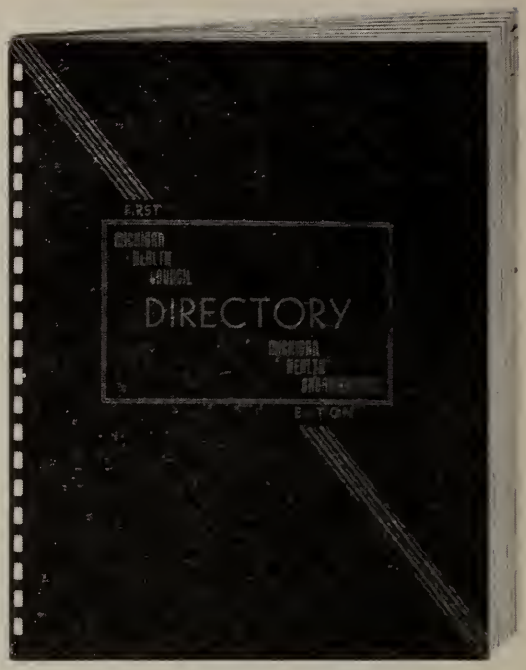
Chairman of the Awards Committee, Hon. John B. Martin, Jr., Auditor General, State of Michigan, will present the awards at the Annual Michigan Rural Health Conference Banquet, January 11, 1952, in Ann Arbor.

MHC DIRECTORY

Sensing a need for a comprehensive Directory of Health Organizations in Michigan, MHC compiled one containing complete information on eighty-eight Michigan Health Organizations.

With a page devoted to each organization, the Directory gives full information, address, names of officers, outline of state and local level objectives and program of each organization.

Copies of this first edition are available at MHC headquarters, 706 N. Washington Avenue, Lansing, Michigan.





M.D. PARTICIPATION

Collaborating with MSMS, the MHC assisted in calling the first Regional Conference on M.D. Participation in Community Health Councils. Held at the Book-Cadillac Hotel, Detroit, in October, 1950, the Conference attracted physicians from twelve states.

Thoroughly aware that no Community Health Council can function effectively without the support, participation and counsel of the local M.D., MHC has encouraged this participation aggressively in all Community Health Council deliberations.

FILM PRODUCTION



Working on MHC Film "The Picture of Health."
—Lansing State Journal Photo

When no film depicting the organization of a Community Health Council existed, MHC was delegated by its Board of Trustees to make one.

Through the services and talent of the Lansing Civic Players, "The Picture of Health" will be ready for release in early December, 1951.

With no formal publicity to date, four states already have requested prints. The National Health Council has indicated a desire to publicize the film nationwide when it is ready for general release.

The photo taken on "location" shows, left to right, Jack Kantner, MSMS Consultant; Mrs. Elizabeth Burroughs, feature player, Lansing Civic Players Guild; Herman Ellis, photographer-producer.

COMMITTEES

During the past year the MHC "Parade of Projects" has been guided by the Board of Trustees, its Executive Committee and the following eight subcommittees: (1) Auditing, (2) Awards, (3) Civil Defense, (4) Community Health Council, (5) Film Production, (6) Health Information Centers, (7) Medical Association Procurement, and (8) Projects.

Pictured is the Civil Defense Committee in action. Left to right—John Griffin, Michigan Office Civil Defense; John Butts, Michigan State Pharmaceutical Association; Chairman C. J. Tinker, Michigan State Grange; E. H. Wiard, Executive Secretary, MHC; H. W. Brenneman, MSMS.



A MHC Committee in action.

THE "PARADE" MUST GO ON!

And now, in the third year of its expanded activities program, the MHC continues to find new avenues down which to march its "Parade of Projects."

As it proceeds down its new and sometimes unchartered route, the line of march constantly lengthens. As the point of origin of the parade fades in the distance, a broader, brighter horizon in the area of health accomplishment ahead becomes more obvious.

Through the continued participation and support of Michigan Medicine, it becomes even more apparent that—

Good Health is the M.D.'s Profession

Good Health is Everybody's Business

FORMULA FOR FREEDOM

The American people's challenge to creeping socialism in the United States.
A working formula to preserve those freedoms necessary to
our own happiness and our country's existence

The Three Elements of the Formula

KNOW YOURSELF

A composite personal appraisal—

1. Periodic Health Appraisal
2. Social-Religious Appraisal
3. Economic Appraisal
4. Legal Appraisal

KNOW HOW TO LIVE

An educational program emphasizing—

1. High standards of morals and conduct
2. An understanding of good professional and business service
3. The American heritage of freedom, private enterprise and its record of accomplishments.

KNOW YOUR GOVERNMENT

An effort similar to the Good Citizenship Campaign of 1950 plus a close searching of governmental actions and participation in governmental deliberations at local, state and national levels.

Each person and organization in Michigan should be made aware of this formula, for it emphasizes the responsibility of the individual—the direct antithesis to the socialistic concept of the responsibility of the state for the individual.

Each of us should find our place in the engineering and operation of this program.

86th Annual Session Highlights



Otto O. Beck, M.D., Birmingham, President of MSMS, and L. Fernald Foster, M.D., Bay City, Secretary of MSMS, greeting visiting doctors of medicine at the door of the House of Friendship. The scientific portion of the Annual Session was held September 26-28.

GRAND RAPIDS SCENE OF GREAT MSMS MEETING

Plenty of action marked the 86th Annual Session in Grand Rapids!

For one inspired week in September, Michigan doctors of medicine heard lectures by twenty-eight eminent teachers and clinicians, listened to the Dean of the College of Law of the University of Notre Dame, completed important business in the House of Delegates, selected Michigan's Foremost Family Physician for 1951, and honored an additional two and a half dozen more practitioners of fifty years' standing, viewed one hundred forty-three scientific and technical exhibits, helped their wives celebrate the Silver Anniversary of the Woman's Auxiliary, attended 14 additional section meetings and twenty-two discussion conferences, named a president-elect, saw and heard the President of the AMA, and incidentally had a good time with old friends and new ones.



Otto O. Beck, M.D.
President

Meeting rooms in the Pantlind Hotel and the Civic Auditorium hummed with activity. When they weren't attending the assembly lectures, the 1,462 M.D.s appeared at one of the 17 meetings of special societies, alumni and ancillary groups arranged coincident with the MSMS Session.

Mingling among the Annual Session activity were top-notch reporters from the Grand Rapids and Detroit papers plus the wire services of Associated Press and United Press. News coverage was accurate, complete and widespread. In one week's time thousands of words were written and flashed all over Michigan as well as to many parts of the United States.

ATTENDANCE RECORD—FOR GRAND RAPIDS—SHATTERED

Total registration at the 86th Annual Session of the Michigan State Medical Society in Grand Rapids, September 23 through September 28, was 2,380, the largest for a Grand Rapids meeting. This total included:

Doctors of Medicine	1,462
Exhibitors	503
Guests	415
Attendance	2,380

In addition, the Woman's Auxiliary to MSMS marked up a registration of 366. The Michigan State Medical Assistants Society, which met the same week in Grand Rapids, counted an attendance of 237. With the ladies, the total registration was 2,983!



The House of Delegates of the Michigan State Medical Society deliberated, September 24 and 25, under a banner proclaiming the 1952 MSMS program: "FORMULA FOR FREEDOM."

President of AMA Addresses Meeting; Delegates Endorse "Formula For Freedom"

Sessions of the MSMS House of Delegates were highlighted with a speech by John W. Cline, M.D., San Francisco, President of the American Medical Association, and a dramatic presentation of the MSMS Public Relations program for 1952.

This PR program is called "Formula For Freedom." Three well-known authorities explained the elements within the Formula to the House of Delegates. The elements are *Know Yourself, Know How to Live,* and *Know Your Government.*

Dr. Alfred P. Haake, Park Ridge, Ill., General Motors political scientist, gave a 10-minute talk on the element of *Know Yourself.* The Very Reverend William T. Reeves, Jr., Grand Rapids, Dean of St. Marks Cathedral, explained *Know How to Live.* John B. Martin, Grand Rapids attorney and Michigan's Auditor-General, presented the third element, *Know Your Government.*

Robert C. Paige, M.D., New York, Chairman of the Doctors Committee for Improved Federal Medical Services, spoke to the Delegates, September 25, along with Dr. Cline.

R. J. Hubbell, M.D., of Kalamazoo, was chosen as President-Elect of MSMS.



John W. Cline, M.D., San Francisco, President of the AMA, addressed members of the House of Delegates on September 25. Robert C. Paige, M.D., New York, Chairman of the Doctors Committee for Improved Federal Medical Services, also spoke that evening. Pictured left to right are Dr. Paige; R. H. Baker, M.D., Pontiac, Speaker of the House; Dr. Cline; J. E. Livesay, M.D., Flint, Vice Speaker; and L. Fernald Foster, M.D., Bay City, Secretary of MSMS. —AD—Photo No. 3

The scientific and technical exhibits were terrific.

Each one provided inspiration and impact. In all, there were 143 scientific and technical exhibits.

In some respects, this year's exhibits were as interesting and desirable to the doctors of medicine as the papers presented in the meeting room. The exhibit section brought tangible values to those who inspected it.

Michigan M.D.s have found there's always something NEW in the MSMS exhibit—and the 1951 "show" in Grand Rapids was no exception!



(Pictured at right)

Doctors of medicine stopped at the registration table before continuing into the exhibits and to scientific meetings.



Hundreds thronged the exhibit section which was located in the Civic Auditorium.



Discussion conferences were held throughout the three-day scientific meetings. The group pictured is attending the conference on Otolaryngology at which H. L. Williams, M.D., Rochester, Minnesota, was quizzed by Michigan M.D.s.



Clarence Manion, J.D., J.U.D., Dean of the College of Law, University of Notre Dame, delivered the Biddle Lecture during Officers' Night ceremonies. Pictured on the stage with him from left to right are Otto O. Beck, M.D., Birmingham, MSMS President; L. Fernald Foster, M.D., Bay City, MSMS Secretary; Dean Manion; and John W. Cline, M.D., San Francisco, AMA President.

Clarence Manion, J.D., J.U.D., Dean of the College of Law, University of Notre Dame, enthralled a capacity audience September 26 in Grand Rapids' Civic Auditorium when he gave a stirring Biddle Lecture on "The Key To Peace."

On the same Officers Night program, Otto O. Beck, M.D., Birmingham, was installed as President of the Michigan State Medical Society. The President's Medal was presented to Dr. Beck by Clarence E. Umphrey, M.D., Detroit, who retired from the office after a year of extraordinary service and high accomplishment.

John W. Cline, M.D., San Francisco, President of the American Medical Association, also addressed this public meeting.

R. J. Hubbell, M.D., of Kalamazoo, was introduced as the newly elected President-Elect of MSMS. Dr. Hubbell, who had served faithfully and with exceptional ability as Chairman of The Council, was named President-Elect by the MSMS House of Delegates on September 25.



One of the final duties of MSMS President Clarence E. Umphrey, M.D., Detroit, was to induct Otto O. Beck, M.D., Birmingham, as MSMS President by presenting him with the President's Medal.

Thirty-two veteran doctors of medicine who had practiced half a century in Michigan became members of the MSMS "50-Year Club." Seventeen of them were at the Grand Rapids meeting to receive their "keys" or membership pins.

Before the meeting began, the first public showing was held of the 1951 MSMS sound, color, 16 mm. movie, "To Save Your Life."

The following night Mrs. Robert S. Breakey, of Lansing, was installed as President of the MSMS Woman's Auxiliary. She succeeded Mrs. Oscar D. Stryker, of St. Clair Shores, who recorded a year of outstanding progress for the Auxiliary as its President.



The Woman's Auxiliary to the Michigan State Medical Society celebrated its Silver Anniversary in Grand Rapids this year. A highlight of the Auxiliary convention was the annual banquet held in the Pantlind Hotel. Mrs. Harold Wahlquist, Minneapolis, President, Woman's Auxiliary to the American Medical Association, was the featured speaker.



Seventeen out of the thirty-two Michigan doctors of medicine who were honored this year by membership in the "50 Year Club" of the Michigan State Medical Society journeyed to Grand Rapids from all parts of the state to receive their "Keys."

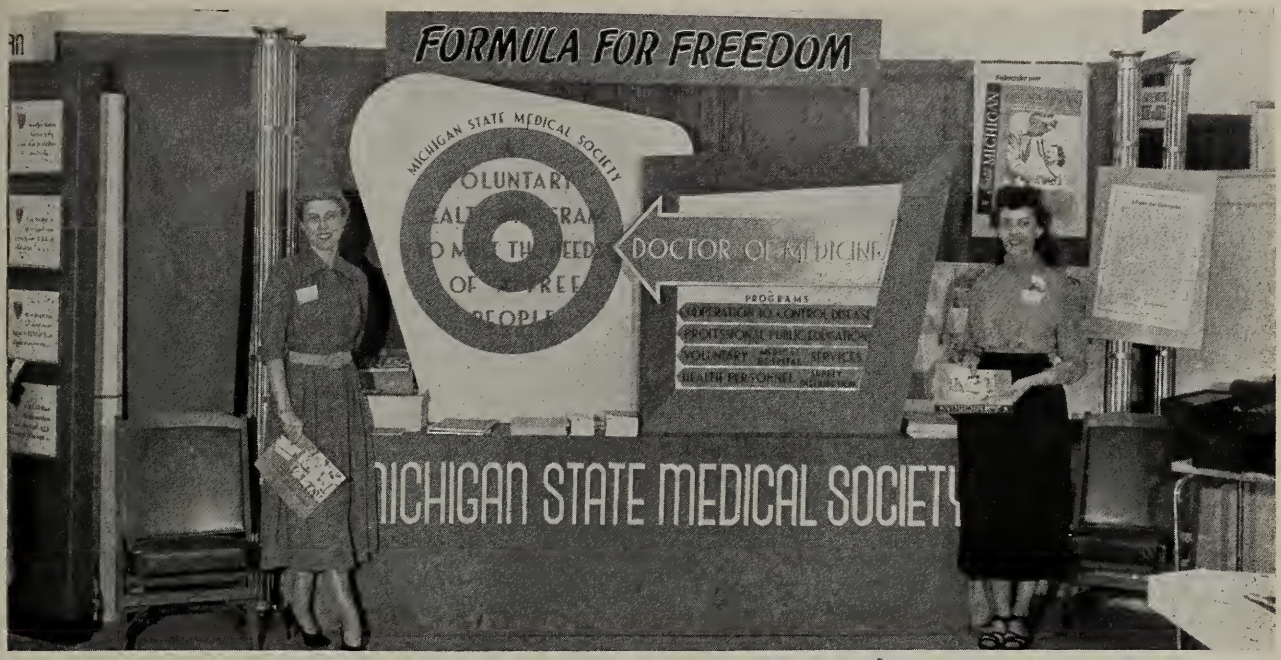
Shortly before the formal presentation ceremonies, September 26, the veteran doctors, who had practiced for half a century, posed for a picture with Clayton Willison, M.D.. Sault Ste. Marie (front row, third from right) who was named Michigan's Foremost Family Physician for 1951. (See page 1277 for list of names.)



Chairmen of MSMS committees for 1951-52 met with President Otto O. Beck, M.D., and Secretary L. Fernald Foster, M.D., during the Annual Session to learn of their duties for the coming year. Pictured clockwise are J. M. Sheldon, M.D., Ann Arbor; R. W. Waggoner, M.D., Ann Arbor; Horace Wray Porter, M.D., Jackson; W. Z. Rundles, M.D., Flint; J. S. Rozan, M.D., Lansing; H. H. Cummings, M.D., Ann Arbor; President Beck; Secretary Foster; E. A. Osius, M.D., Detroit; Brock E. Brush, M.D., Detroit; O. D. Stryker, M.D., Mount Clemens; R. J. Mason, M.D., Birmingham; and A. H Whittaker, M.D., Detroit.



Four MSMS officials enjoy a chat in the MSMS House of Friendship, Civic Auditorium. They are, left to right, Harold H. Hiscock, M.D., Flint, Councilor 6th District; President Otto O. Beck, M.D., Birmingham; W. S. Jones, M.D., Menominee, Councilor 13th District; and H. H. Cummings, MD., Ann Arbor, Past President and present Chairman of Committee on Postgraduate Medical Education.



The MSMS Public Relations booth was the scene of much activity in the exhibit hall, Civic Auditorium. The same exhibit was used at the Michigan State Fair where more than 58,000 pieces of medical literature were distributed.

SERVICE CLUB TALKS

C. E. Umphrey, M.D. Detroit	Exchange Club	Sept. 24
J. S. DeTar, M.D., Milan	Kiwanis Club	Sept. 24
Hugh W. Brenneman, Lansing	Lions Club	Sept. 25
L. Fernald Foster, M.D., Bay City	Rotary Club	Sept. 27

RADIO BROADCASTS

"The Three Presidents Speak"	Radio Station	Sept. 25
1. John W. Cline, M.D., San Francisco, AMA	WLAV	6:30 P.M.
2. Clarence E. Umphrey, M.D., Detroit MSMS		
3. L. Paul Ralph, M.D., Grand Rapids, Kent County Medical Society	John R. Pedden, M.D., Grand Rapids, moderator	
R. J. Hubbell, M.D., Kalamazoo, MSMS President-Elect	Radio Station WOOD	Sept. 26 12:15 P.M.
J. S. DeTar, M.D., Milan		
Mrs. Robert Breakey, Lansing, President, Woman's Auxiliary	Radio Station WOOD	Sept. 27 2:45 P.M.
Mrs. Oscar D. Stryker, St. Clair Shores, Immediate Past President		
Clarence E. Umphrey, M.D., Detroit, MSMS Past President	Radio Station WOOD	Sept. 28 2:45 P.M.
Clayton Willison, M.D., Sault Ste. Marie, Michigan's Foremost Family Physician		

TELEVISION PROGRAM

"Lucky Junior" film	WLAV-TV	Sept. 25 10:30 PM.

FIFTY-YEAR CLUB MEMBERS, 1951

William F. Acker, M.D.	Monroe
D. H. Burley, M.D.	Almont
Wm. H. Brock, M.D.	Saginaw
J. W. Barnebee, M.D.	Kalamazoo
G. A. Conrad, M.D.	Sault Ste. Marie
G. C. Conkle, M,D.	Boyne City
Julius C. Clippert, M.D.	Grosse Ile
J. E. Curlett, M.D.	Roseville
J. W. Gethings, M.D.	Battle Creek
C. S. Gorsline, M.D.	Battle Creek
Augustus Holm, M.D.	LeRoy
James Houston, M.D.	Swartz Creek
G. B. Hoops, M.D.	Detroit
Wm. T. King, M.D.	Ahmeek
Simon Levine, M.D.	Houghton
Horace H. Loveland, M.D.	Tecumseh
George W. Logan, M.D.	Flushing
Frank E. Luton, M.D.	St. Johns
G. W. Moore, M.D.	Bay City
A. E. MacGregor, M.D.	Battle Creek
Esli T. Morden, M.D.	Adrian
A. Noordewier, M.D.	Grand Rapids
F. W. Ostrander, M.D.	Freeland
W. T. Parker, M.D.	Owosso
B. Morgan Parker, M.D.	Utica
J. W. Rigterink, M.D.	Grand Rapids
E. D. Sage, M.D.	Kalamazoo
L. N. Upjohn, M.D.	Kalamazoo
H. R. Wilson, M.D.	Saginaw
W. H. Winchester, M.D.	Flint
Herbert H. Wiley, M.D.	Algonac
J. C. Grosjean, M.D.	Bay City

In addition there were frequent radio newscasts on Stations WOOD, WGRD, WJEF and WLAV. Station WOOD featured statements by Leo E. Brown, PR Counsel of the AMA; Fred Brace, M.D., Grand Rapids; and a number of out-state doctors of medicine who took part in the scientific program of the Annual Session.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

The Michigan Department of Health, to which the 1951 legislature transferred the responsibility for licensing maternity hospitals effective September 28, has issued a handbook, "Rules and Regulations for Hospitals with Maternity Departments." Copies of the booklet have been sent to hospital maternity home and nursing home administrators throughout the state.

This Department in co-operation with the Michigan Hospital Association and the Michigan Association of Fire Chiefs, the State Fire Marshal's Office and the Office of Hospital Survey and Construction is now setting requirements for the fire protection of new babies and mothers in maternity hospitals.

Dr. Martha O'Malley, Director of Hospital and Institutional Services of the Indiana State Board of Health, a recognized authority on maternity homes, recently visited this Department in connection with the work being done toward maternity home improvement in the state.

* * *

Seven-year examinations in the nationally significant Grand Rapids children's dental fluoridation project were conducted during October.

* * *

Michigan's public health departments have been chosen, along with those of seven other states, as the basis for a nationally significant study being done by Yale University through Public Health Service funds.

Field workers of the Yale Public Health Research Project received orientation in the Michigan Department of Health and have begun several months' analysis of public health work in the State. They will study what each public health worker does, how he does it, and how long it takes him to do it. The three-year national study is expected to result in recommendations for the improvement of administrative structure, program planning and program staffing of the nation's public health agencies.

The study not only includes the work of the State Health Department but also the work of representative local health departments. In Michigan upon recommendation of this Department's advisory Technical Committee on Public Health Administration, they will go into Wayne, Oakland, Lansing-Ingham, Kalamazoo City-County, Ottawa, Shiawassee, District Kalkaska-Crawford-Missaukee-Roscommon-Wexford and the Chippewa-Luce-Mackinac Health Departments which reflect the various types of local health organization in the State.

* * *

Increased industrial mobilization and reactivation and expansion of military establishments have, in the past, resulted in congested housing, inadequate recreational facilities, disrupted homes, juvenile delinquency, organized and clandestine prostitution and an increase in the venereal disease rate in several sections of the State.

To determine what can be done to prevent recurrence of the unfortunate socio-economic conditions and their resultant social hygiene problems, an invitational meeting of leaders in industry, labor, welfare, law enforcement, mental health, medicine, recreation, youth groups and official and unofficial health agencies was held in Lansing, October 18. Both the Michigan Health Officers Association and the Venereal Disease Committee of the Michigan State Medical Society were among groups represented.

* * *

A Michigan Department of Health mobile x-ray unit operating at the Michigan State Fair, set a new record for a Department unit when it x-rayed the chests of 1,201 persons Labor Day. Two mobile units, in nine days at the State Fair, x-rayed the chests of 11,903 Michigan people.

* * *

During September—Better Breakfast Month—this Department promoted return to the "family breakfast" as an aid to better nutrition, mental health and family life. As an aid in cutting the cost of a really good breakfast, Alice Smith, Chief Nutritionist of the Department, conducted a study which showed that the cost of whole-grain cereal in Michigan varied from five cents a pound for rolled oats to 74 cents a pound for some of the dry prepared cereals.

Regulations for excluding the sick child from school and for his isolation or quarantine, as well as Michigan's major causes of death, suggestions for a school health council, football safety and gun safety are among the subjects discussed in the October issue of *Michigan Public Health*, official magazine of the Michigan Department of Health. A copy of the October issue which deals primarily with the school age child, or a year's subscription to the magazine can be obtained without charge from the Department.

* * *

When this Department's present supply of diphtheria toxoid, as a single antigen, is exhausted, future lots will be combined with tetanus toxoid. The Department will, however, continue to manufacture tetanus toxoid as a single antigen for use at the time of an injury. The Department also continues to manufacture tetanus, diphtheria and pertussis toxoids combined.

This Department recommends that alum-precipitated toxoid be used for all age groups, but that it be given intramuscularly and not subcutaneously.

* * *

State police, flying at nearly 200 miles per hour, rushed antixtoin from the laboratories of this Department to Niles to save the life of a 15-year-old girl, gravely ill of diphtheria. Call for the antitoxin to supplement an inadequate supply in an area where there is no full-time local health department was received at 12:52 p.m., Saturday, September 8. State police summoned by this

(Continued on Page 1280)

(The Council on Pharmacy and Chemistry of the American Medical Association has adopted the following statement of Actions and Uses and of Dosage for publication in connection with a description of Banthīne Bromide for inclusion in New and Nonofficial Remedies)

Methantheline Bromide.—*Banthīne® Bromide (Searle)*

β-diethylmethylaminoethyl 9-xanthenecarboxylate bromide

Actions and Uses.—Methantheline bromide, a parasympatholytic agent, produces both the peripheral action of anticholinergic drugs such as atropine and the ganglionic blocking action of drugs such as tetraethylammonium chloride. Tolerated amounts of methantheline bromide exert side effects typical of atropine-like drugs, but cause less tachycardia, and also less postural hypotension than does tetraethylammonium chloride. Toxic doses produce a curare-like action at the somatic neuromuscular junction.

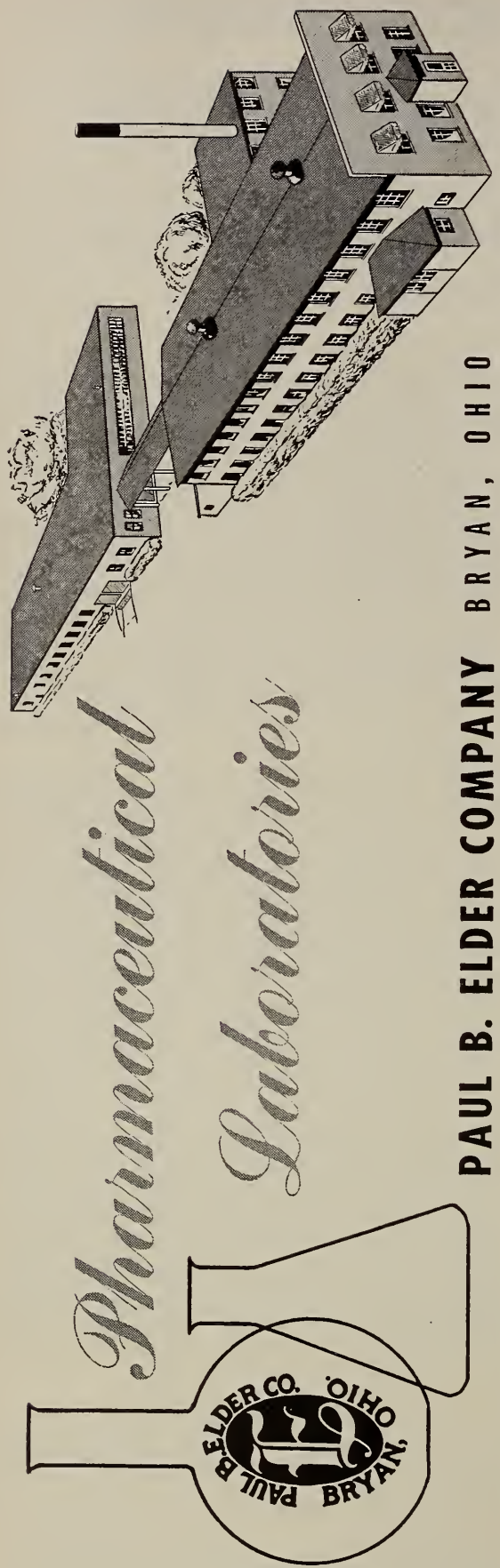
Clinical studies indicate that the drug effectively inhibits motility of the gastrointestinal and genitourinary tracts and, to a variable degree, diminishes the volume of perspiration and salivary, gastric and pancreatic secretions. It also decreases mucoprotein secretion. Like atropine, it produces mydriasis and cycloplegia when applied locally to the eye or administered systemically, but until more clinical evidence becomes available, its local use for this purpose is not recommended. The value of the drug for preventing abnormal cardiac reflexes through the vagus during thoracic surgery, or as an agent for routine preoperative medication in place of atropine, requires further investigation before final conclusions can be reached.

Methantheline bromide is indicated for clinical use whenever anticholinergic spasmolytic action is desired, provided it is not contraindicated because of its atropine-like characteristics or because of a patient's intolerance to the unavoidable side effects of such therapy. It is useful as an adjunct in the management of peptic ulcer, chronic hypertrophic gastritis, certain less specific forms of gastritis, pylorospasm, hyperemesis gravidarum, biliary dyskinesia, acute and chronic pancreatitis, hypermotility of the small intestine not associated with organic change, ileostomies, spastic colon (mucous colitis, irritable bowel), diverticulitis, ureteral and urinary bladder spasm, hyperhidrosis or control of normal sweating which aggravates certain dermatoses, and control of salivation.

Methantheline bromide produces some degree of cycloplegia and mydriasis in therapeutic doses and therefore should not be administered to patients with glaucoma. It sometimes decreases the ability to read fine print. Xerostomia (dryness of the mouth) is a common, sometimes transient, side effect. Urinary retention of varying degree may occur in elderly male patients with prostatic hypertrophy, and some patients may have difficulty emptying the rectum. Patients with edematous duodenal ulceration may experience nausea and vomiting during initial administration of the drug. These patients should take only liquids during the institution of drug therapy. All patients should be advised of the possible occurrence of side effects. Overdosage sufficient to produce a curare-like action may be counteracted by prompt subcutaneous injection of 2 mg. of neostigmine methylsulfate.

Dosage.—Methantheline bromide is administered orally or parenterally by either the intramuscular or intravenous route. Parenteral administration is not advised for patients able to take the drug orally. The average initial adult dose, oral or parenteral, is 50 mg. For patients with considerable intolerance, 25 mg. may be employed. In the management of peptic ulcer, a beginning schedule of 50 mg. three times daily before meals and 100 to 150 mg. on retiring is suggested. However, the usual effective dose is 100 mg. four times daily, although some patients may require more or less than this amount. The dosage may be increased to tolerance, using dryness of the mouth as a guide, and adjusted to meet the individual response of patients. Maintenance dosage in peptic ulcer is usually considered to be about one-half the therapeutic level. In the management of other hypermotile or hypersecretory states, the dosage should be adjusted to the smallest amount which will relieve the symptoms. When spastic conditions are secondary to inflammatory or other organic lesions, therapy directed toward the cause should be employed whenever possible.

G. D. Searle & Co.
Tablets Banthīne Bromide: 50 mg.
Ampuls Banthīne Bromide: 50 mg.



(Continued from Page 1278)

Department, picked up the serum and had it airborne in 30 minutes. Another State Police relay handed it to the physician in Niles, 125 miles distant, 86 minutes later. The child was reported out of danger Sunday.

* * *

Vital Records Section of the Michigan Department of Health completed 4,721 searches during the month of August, the largest number in any month since July of 1943 when 5,245 searches were made. The increased demand for vital records appears to have resulted from enlistments in military service, defense employment, school entrance requirements, broadened social security coverage, old age pensions and retirement.

* * *

"Food and Tuberculosis," a guide for buying foods and planning meals for those who have or have had tuberculosis, published by the Michigan Tuberculosis Association, has been revised.

The publication now includes a work chart for determining quantities of food for the family. The publication also shows how to figure the weekly food needs of the family and how to translate these weekly amounts into market orders and menus, and include a guide for buying. Weekly food requirements for normal individuals and/or those with increased food needs due to tuberculosis are also listed. Information in the pamphlet was prepared by the Section of Nutrition, Michigan Department of Health.

Copies can be obtained from the Section of Nutrition, Michigan Department of Health or the Michigan Tuberculosis Association.

* * *

Hearing consultants of the Michigan Department of Health are assisting the Michigan Association for Better Hearing in construction of a mobile hearing unit, patterned after the one owned by the Michigan Department of Health which was designed at the instigation of and with the assistance of the Department Hearing Consultants. The mobile unit of the Michigan Association for Better Hearing will be used to take hearing services to adults in small and rural communities in the state where such services are not otherwise available.

* * *

Public hearing on tuberculosis hospitalization needs in southeastern Michigan was held by the Michigan Tuberculosis Sanatorium Commission in the Wayne County Medical Society Building, 4421 Woodward Avenue, Detroit, October 17.

To the meeting which was open to all interested people and agencies, boards of supervisors, the Michigan Tuberculosis Association, local tuberculosis associations, local health departments and sanatoria in the area were especially invited to send representatives to consider the tuberculosis hospital needs and propose solutions to the problem.

The hearing was called in compliance with a request of the 1951 legislature for a survey of the tuberculosis hospital needs of the state.

* * *

In response to more than 100 requests from local health department people this Department on October 22 and 23 provided two-day orientation courses in Department

policies, procedures, programs, plans and co-ordination at Kellogg Continuing Education Center, Michigan State College. Another course will be provided in the spring.

An orientation program requested by clerks of the Upper Peninsula local health departments was held in Escanaba in September.

* * *

Health committee members of Boards of Supervisors from Dickinson, Iron, Ontonagon and Gogebic counties met recently to discuss possibilities of forming a new local health jurisdiction, based on the redistricting suggestions of this Department which were designed to provide state-wide local health services and broader tax bases to support local health departments.

* * *

Publicity given the Ann Arbor nurse murder case resulted in a rash of suspected marihuana cases in which the Crime Detection Laboratory was asked to make tests.

* * *

Dr. Francis Weber, former director of the Michigan Department of Health Division of Veneral Disease Control, has been named Field Director of Region No. 4, U. S. Public Health Service (Cleveland) which includes Michigan.

* * *

Richard Hofstra, M.D., has been appointed director of the Lenawee County Health Department effective September 1, 1951. He received orientation experience in Ottawa County during September.

* * *

Max Silverman, M.D., has been appointed acting director of the Dearborn City Health Department to serve until a full-time director is appointed.

* * *

R. A. Tearnan, M.D., has been appointed full-time director of the Alger-Schoolcraft District Health Department effective August 1, 1951.

* * *

Reappointment of Dr. Albert E. Heustis as State Health Commissioner was confirmed by the Senate, August 20.

* * *

A. B. Mitchell, M.D., resigned as director of the Shiawassee County Health Department to become director of the Health Department of Allegan and Van Buren Counties effective October 1, 1951.

TUBERCULOSIS CONTROL PROGRAM IN A MENTAL INSTITUTION

(Continued from Page 1254)

Our experience is definite proof that co-operation of the resident staff in a mental hospital with a team of specialists in the tuberculosis field can reduce the incidence of tuberculosis to a marked degree. The results have been more satisfactory than we thought possible.

References

1. Katz, Julius: Tuberculosis control in New York mental institutions. Health News, New York State Department of Health, 27:12 (Dec.) 1950.
2. Robertson, P. C., medical superintendent of Ionia State Hospital: A critical summary.

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— with its high vacuum, pure quartz tube containing mercury provides radiation rich in both the germicidal and antirachitic ultraviolet rays.

Thorough investigations have definitely established the *ancillary* therapeutic value of ultraviolet radiation in a great variety of diseases. Ultraviolet irradiation is *specific* for lupus vulgaris and for prevention of rickets by prenatal (entire body) radiation for the mother and nursing mother.

The Burdick Ultra Lux is low-priced, economical in operation and long-lived because of expert construction.

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PROBLEM DRINKER

The Keeley Institute is more than a group of buildings.

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It is the combination of *know-how* and physical facilities which accounts for the eminent success of the treatment of alcoholism at The Keeley Institute.

Information, including rates, will be furnished to physicians on request.

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DWIGHT, ILLINOIS

Communications

C. E. Umphrey, M.D., President
Michigan State Medical Society
Detroit, Michigan
Dear Dr. Umphrey:

While I expressed my appreciation to you for the award presented to me by the Michigan State Medical Society, I wanted to write you to thank you more personally for your part in the presentation.

The manner in which you made the presentation was perfect—dignified but not too effusive. You made us sincerely feel that an honor was being bestowed upon us and that it was an honor on your part to make such an award. I cannot imagine how it all could have been improved upon.

I am most sincerely appreciative.

Very truly yours,
MAX R. BURNELL, M.D.
Medical Director
General Motors Corporation,
Detroit

September 21, 1951

* * *

Dr. L. Fernald Foster, Secretary
Michigan State Medical Society
Lansing 15, Michigan
Dear Doctor Foster:

I want to thank the Michigan State Medical Society for the scroll presented to me at a luncheon on Friday, September 14, by President C. E. Umphrey, and I do not know just how to do it. Perhaps I should say, and in doing so I am expressing my great appreciation, that the presentation of scrolls to Mr. C. E. Wilson and Dr. Max R. Burnell as President and Medical Director of General Motors Corporation was one of the most significant steps which has occurred thus far in the practice of industrial health as a medical specialty and I thrilled with pride at the time the presentation was made.

Sincerely yours,
C. D. SELBY, M.D.
School of Public Health
University of Michigan
Ann Arbor, Mich.

September 25, 1951

* * *

Otto O. Beck, M.D.
Birmingham, Michigan
Dear Dr. Beck:

At our 25th annual meeting held in Grand Rapids, September 26, the following resolution was unanimously passed, and it is now my privilege and pleasure to forward this copy to you as President of the Michigan State Medical Society, and to thank you and the Council for the beautiful gavel and Scroll marking our silver anniversary:

Say you saw it in the Journal of the Michigan State Medical Society

• Licensed by State of Michigan, Dept. of Mental Health • Registered by American Medical Association

ST. JOSEPH'S RETREAT



Founded in 1860

Under direction of
Daughters of Charity
of St. Vincent de Paul

Newly reorganized and modernized for individualized care and treatment of the nervous and mentally ill and alcoholics.

Martin H. Hoffmann, M. D.
Medical Superintendent

23200 Michigan
DEARBORN • near Detroit
LOgan 1-1400

"WHEREAS, The Michigan State Medical Society through its Public Relations office at Lansing has so generously assisted the Auxiliary in its work by the publication of the *News Bulletin* and the JOURNAL for the recognition of the Auxiliary, on this, their Silver Anniversary, with the silver page of past presidents in its August issue;

THEREFORE BE IT RESOLVED, That the Woman's Auxiliary express our thanks and grateful appreciation to the Michigan State Medical Society and the Public Relations office and that a letter of thanks be sent to both the Michigan State Medical Society and the Public Relations office."

Cordially yours,
MRS. R. J. HIMMELBERGER
Corresponding Secretary
Woman's Auxiliary to MSMS

October 10, 1951

* * *

WESTERN UNION
DL Chicago, Illinois, Oct. 6, 1118 A—
Wilfrid Haughey, M.D.
Editor of the Journal of the Michigan State Medical Society
610 Post Building, Battle Creek, Mich.

Your Golden Rule front page cover on Michigan Medical Journal is the most meaningful I have ever seen on a medical journal in forty-five years and indeed timely today. Our public should see this cover in all doctors' offices that they may know we have been doing just that for years. Contrary to the propaganda that the New Dealers are the only ones practicing this proverb. Congratulations.

HENRY W. ABELMANN
1426 West Rosemont Ave.
Chicago, Illinois

* * *

Chicago, Illinois
October 10, 1951

Dear Doctor Haughey:

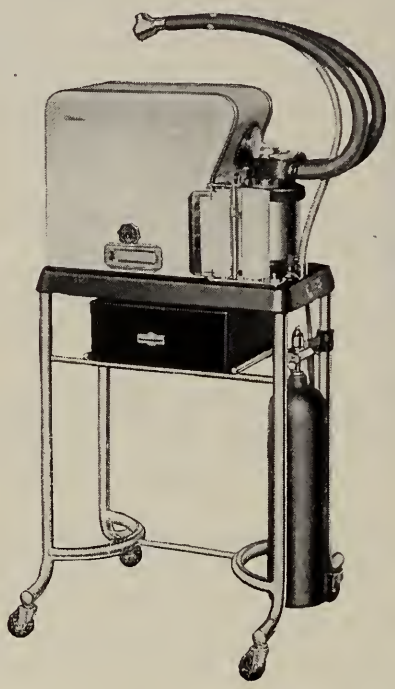
Please know what a great pleasure it was to shake your hand and say hello again during the Michigan meeting last week. I miss all my friends at the state society, but on the other hand, I am enjoying my new connection in Chicago equally as well.

My purpose in writing is to clarify an apparent misunderstanding with regard to the earmarking of funds to the American Medical Education Foundation. The resolution is quite properly worded, but on page 852, I am afraid that misunderstanding may result from the statement that donations to the fund should be directed to Dean Scott at Wayne University. My reason for sending this letter is because all contributions to the American Medical Education Foundation must be received in Chicago first. Upon receipt here, they are acknowledged and deposited to the credit of the Foundation. Donations may be earmarked for any one of the seventy-nine medical schools, and when additional grants are made to these

McKESSON

NO. 186

METABOLOR



The Metabolor is designed for accuracy and simple operation. The calculations are easy to make with the calculator which is furnished with each unit.

The absorber and valve assembly may be easily removed by the operator for thorough cleaning which is an outstanding feature of the Metabolor alone.

Many other fine points make this instrument a desirable adjunct to your diagnostic routine. We will be pleased to give you a demonstration at any time.

THE MEDICAL SUPPLY CORP.
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schools, every single cent which is earmarked will go to the school for which it is intended, be it Wayne, University of Michigan, or any other school.

The point I am trying to make is that contributions should be directed to the Foundation office first. This is the only way that accurate records can be kept with regard to the progress of the Foundation, and is the only basis upon which donations can be noted in the JAMA. I hope I haven't confused you, and I will be happy to call or write you further in order to correct this situation. With best wishes to a very good friend,

Sincerely yours,
RUSSELL F. STAUDACHER
Executive Secretary
American Medical Education Foundation

* * *

Mr. Ronald Yaw, Director
Blodgett Memorial Hospital
Grand Rapids, Michigan
Dear Ron:

The enclosed clipping is from the Battle Creek *Enquirer and News,* the September 24 edition. I think it explains pretty well what this project is intended to do and indicates that we are not embarked on a project that will entail destroying the foundations of medicine.

I am very sorry about the story that appeared in the *Free Press* and, evidently, in a great many other newspapers over the country. That story was taken from context and misrepresented to a great degree what the project is trying to accomplish. It is already proving very embarrassing to me personally and to the Foundation, unfortunately, as well.

Anything you can do to allay some of the misapprehensions among the medical profession in the state as to the Foundation's interest in this program would be very much appreciated by me. I will be glad to send you the complete speech, but I have only one copy available and I cannot let it out of the office at the present time. Incidentally, I might say that we are discussing right now ways and means of conveying to the medical profession what our purposes in this project are.

Sincerely yours,
ANDREW PATTULLO
Director, Division of Hospitals
W. K. Kellogg Foundation
Battle Creek, Michigan

September 25, 1951

PROJECT SEEKS TO MEASURE HOSPITAL AND SURGICAL CARE

The W. K. Kellogg Foundation is backing an inquiry known as "Project X" which will attempt to set up a measuring stick for hospital and surgical care.

Andrew Pattullo, director of the Foundation's hospital division, made its existence known at the convention of the American Hospital association in St. Louis, Mo., last week.

A field man whose identity is being kept a secret to the public has already completed a survey of three or four hospitals out of 12 which have agreed to go along with the project.

The field man is one of the nation's crackerjack intern-

Say you saw it in the Journal of the Michigan State Medical Society

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ists. An internist is one who treats internal diseases. Mr. Pattullo is particularly emphatic on this point, after learning that the information was circulated in some quarters that the project is making use of an "intern." An intern is an assistant resident physician, generally a recent graduate.

"Dr. X" is embarked on a project which may prove entirely fruitless, and again it could establish a new milestone of progress in the medical profession's fight for ever higher standards of care and treatment.

Belief Supported

Mr. Pattullo believes that hospital care and surgical care can be measured and he has a great deal of expert medical support for the belief. "It may not be possible to evaluate some of the intangibles, but it should be possible to set up some criteria which are not now used," he explained.

One point that has been misunderstood is this: Dr. X is known to the hospital staff, doctors, and board of directors of each of the hospitals in the preliminary survey. "Otherwise it would be impossible to make a valid survey," Mr. Pattullo points out. In other words, Dr. X is no medical "Private Eye" who will be lurking in corridors.

Some attempts have been made before to find a measuring stick for hospital care. But most of them have been abortive, lacking approval of the right authorities in some cases, lacking finances in others.

Crude Methods

The measurements which do exist and are generally used are very crude ones, it is explained. If a patient recovers, it would appear that his treatment was satisfactory, or if he does not, that it was poor. If the mortality rate is low, it would also indicate care in treatment, but this would not necessarily be an indication in individual cases.

Dr. X is proceeding along these lines: examining medical and hospital records, he will determine the patient's symptoms at the time he enters the hospital, what these symptoms indicate, whether the proper verifying laboratory tests were given to support diagnosis and whether they were given on time.

The inquiry is not meant as a "big stick" with which to cudgel individuals, the alarming conclusion which some have arrived at, but is intended as an aid to the medical profession in keeping its own standards at the highest point, Mr. Pattullo explains.

About $6,000 has been allocated this year for the project. If the initial survey indicates that the goal can be realized with additional expenditures, the Foundation's board of directors would be inclined to support it with further grants, Mr. Pattullo believes.—*Battle Creek Enquirer & News*, Sept. 24, 1951.

* * *

Saginaw, Michigan
September 19, 1951

Dear Mr. Burns:

We have just recently received our approval from the Council on Medical Education and Hospitals of the American Medical Association for a rotating internship program as well as having had the approval for a two-year rotating residency in General Practice.

We are most anxious to secure two resident physicians at the earliest possible time and are placing our request for interns as with the procedure outlined by the American Medical Association.

We have a very fine teaching program to be given by our Medical Staff, of which there are above the average number of doctors who are members of their Specialty

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Boards and members of the American College of Surgeons, who are interested and really appreciate such a project.

The salary established for resident physicians is $300 to $350 per month with uniforms and their laundering. The salary for interns is $250 per month with uniforms and the laundering of them. We have a beautiful new hospital of 139 adult beds with 32 bassinets furnished with all new modern equipment and every provision has been made for thorough study in a general rotating internship and General Practice residency in Surgery, Medicine, Obstetrics and Gynecology, Pediatrics and Emergency work. We also have the services of a full-time Pathologist and Roentgenologist.

Any publicity you may be able to give us or by posting this letter where the doctors will come in contact with it, would be appreciated very much.

Anyone who would like further information regarding our hospital, we would be glad to arrange for them to visit us and furnish whatever information they may desire.

Sincerely yours,
Olive E. Lebold, R.N.
Superintendent, St. Luke's Hospital

In Memoriam

GEORGE DOCK, M.D.

George Dock died June 6, 1951 at the age of ninety-two. He taught at the University of Michigan from 1891 to 1908. He was Professor of Medicine and head of the department when most of our Michigan practitioners knew him. He was an outstanding clinician and teacher, and was awarded the AMA Distinguished Service award recently. He lived in California for many years after leaving Michigan.

* * *

WILL KEITH KELLOGG

W. K. Kellogg died in Battle Creek, October 6, 1951. He was the younger brother of John Harvey Kellogg, M.D., founder of the Battle Creek Sanitarium and prominent exponent of "biologic living." Mr. Kellogg founded the Kellogg Company, manufacturing breakfast foods. He established the W. K. Kellogg Foundation and during his life gave away more than fifty million dollars for health and welfare purposes. Several hundred of our members were sent to postgraduate study during the depression years in furtherance of Mr. Kellogg's program of care for children. He established or helped to establish hospitals and health centers.

Laboratory tests, no matter how well done, will not do the thinking for the clinician.

The indiscriminate use of the "wonder" or "miracle" drugs without first determining the nature and cause of the disease is making a lost art of diagnosis.

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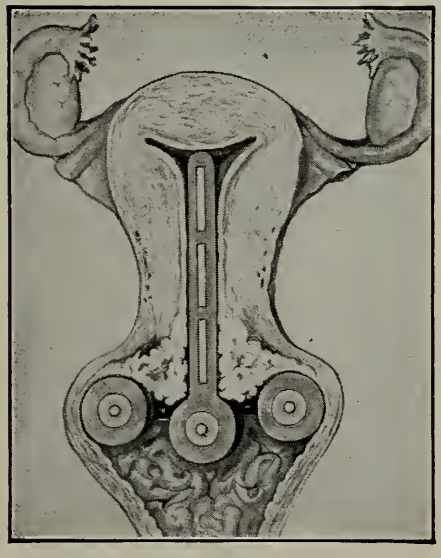
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COLORADO MEDICAL SOCIETY HONORS MICHIGAN DOCTOR



MSMS Treasurer Andrew S. Brunk, M.D., Detroit, was elected an honorary member of the Colorado State Medical Society by unanimous vote of its House of Delegates.

Dr. Brunk received this recognition from CSMS for founding the Conference of Presidents and Other Officers of State Medical Associations in 1945 while serving as President of the Michigan State Medical Society.

Only five other persons besides Dr. Brunk have received honorary memberships in the Colorado organization.

Congratulations, Dr. Brunk, on this unusual and well-merited recognition!

The 1952 Michigan Clinical Institute
will be held on
Wednesday-Thursday-Friday,
March 12-13-14, 1952
Book-Cadillac Hotel, Detroit
Program will be published in January JMSMS.

The "FBI Law Enforcement Bulletin," September number, carried a three-page story on the emergency use of school buses as ambulances in the event of a disaster.

This idea, a Michigan State Medical Society First, was conceived by John R. Rodger, M.D., of Bellaire. The plan has since been submitted to State and Federal civilian defense officials.

* * *

The family doctor and Michigan medicine are lauded in a seven-page article, "The Return of the Family Doctor," which appeared in the October issue of *Inside Michigan*, a new publication.

The art work on the cover of the magazine is also devoted to the article. *Inside Michigan* is published by Arthur Hagman of Detroit. The monthly magazine is well worth the attention of every person in Michigan who wants to know more about his state and what is being accomplished under the private enterprise system.

* * *

GOOD READING

1. **"The Key to Peace."** By Clarence Manion, South Bend, Ind. (Dr. Manion was 1951 MSMS Biddle Lecturer). The Heritage Foundation, Inc., 75 E. Wacker Drive, Chicago 1, Ill. $2.00.

2. **"Permanent World Peace"** by Roy R. Whittenburg, printed by the Steck Co., Austin, Texas. Write to Roy R. Whittenburg, Amarillo, Texas.

MAKE YOUR HOTEL RESERVATION EARLY
MICHIGAN CLINICAL INSTITUTE
DETROIT—MARCH 12-13-14, 1952

Committee on Hotels, Michigan Clinical Institute
c/o C. B. Loftis, Book-Cadillac Hotel, Detroit 31, Michigan
Please make hotel reservation(s) as indicated below:

Hotel.....(1st choice)

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Arriving March.....hour.....A.M.....P.M.

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Name	Address	City	State
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.....	.....	.....	.....

Date..... Signature.....

Address .....City.....

3. **"A Doctor for You."** Write: American Medical Association, 535 N. Dearborn, Chicago 10, Ill.

4. **"The Doctors Clean House."** Write: American Medical Association, 535 N. Dearborn, Chicago 10, Ill.

5. **"Return of the Family Doctor,"** featured in "Inside Michigan," October, 1951, page 18. Write: Inside Michigan Magazine, 944 Free Press Bldg., Detroit 26, Mich. 30c per copy.

* * *

Michigan Doctors of Medicine who received the degree of Certified Fellow at the 1951 Assembly of the International College of Surgeons, United States, held at the Palmer House, Chicago, September 10-13, are:

Henry Seabury Brown, Detroit; Harold Daniel Dykhuizen, Muskegon; John Morgan Hammer, Kalamazoo; John Eugene Hauser, Detroit; Edward Kenneth Isbey, Centerline; Emil Joseph Lauretti, Muskegon; Francis Buttnick MacMillion, Detroit; J. Duane Miller, Grand Rapids; George Moriarty, Detroit; Roland Pitman Reynolds, Detroit; Geza Schinagel, Detroit; Donald Neil Sweeny, Jr., Detroit; Eugene S. Thornton, Muskegon; Colin Campbell Vardon, Detroit; Edward M. Vardon, Detroit; and William Joseph Yott, Detroit.

Those advanced to the rank of Certified Fellow were: William Francis Goins, Detroit; Carl St. Claire Ratigan, Dearborn; Theodore Irving Roth, Detroit; Maurice Martin Silverman, Detroit, and Nur Muhammad Malik, Detroit.

* * *

Dean W. Myers, M.D., Ann Arbor, retired as of September 1, 1951 after completing more than half a century of medical practice. Dr. Myers, who served for many years as an MSMS Councilor for the Fourteenth District, was graduated from the University of Michigan in 1899 and practiced exclusively in Ann Arbor except for a four-year period in Grand Rapids. He served as Professor of Ophthalmology and Otolaryngology at the University of Michigan from 1907 until 1922; he was a member of the Board of Governors of the American College of Surgeons from 1920 to 1926; Board of Directors of Ann Arbor Chamber of Commerce and also President; President of the City Council of Ann Arbor in 1929.

Dr. Myers, retiring at the age of seventy-seven, plans to continue to play golf, to travel, and to take motion pictures, his three lifelong hobbies.

* * *

The Arthritis and Rheumatism Foundation, Michigan Chapter, has given $81,200 as grants-in-aid for research into the cause and cure of arthritis and rheumatism to the following Michigan institutions: $21,900 to University Hospital, University of Michigan; $19,500 to Harper Hospital; $16,000 to the Child Research Center of Michigan; $10,000 to Wayne University College of Medicine-Receiving Hospital project; $7,000 to Providence Hospital; and $6,800 to Wayne University College of Medicine. The grants are for a 12-month period.

Previous grants of $10,500 to Henry Ford Hospital; $7,500 to Grace Hospital; and $7,500 to Wayne County General Hospital which were delayed because of lack of equipment and trained research personnel were reapproved by the Michigan Chapter Board of Directors

Relationship of Stress to Autonomic Lability

Studies in psychosomatics have shown that functional disorders often are a result of the patient's inability to adjust to emotionally stressful situations (stressor factors).

Nervous tension and chronic anxiety, discharged through a labile Autonomic Nervous System, can cause somatic disturbance. [1,2] Such states may involve any one of the organ systems or several at one time. [1,3] The outline below is designed to relate gastrointestinal and cardiovascular symptomatology to the exaggerated response of the autonomic nervous system.

	Physiologic Effects of Autonomic Discharge	
	Sympathetic	Parasympathetic
Gastro-intestinal System	Hypomotility Intestinal Atony Hyposecretion Reduced salivation	Hypermotility Gastrointestinal spasm Hypersecretion
Cardio-vascular System	Rapid heart rate Peripheral vaso-constriction	Slow heart rate Vasodilatation
Functional Manifestations	Palpitation Tachycardia Elevated blood pressure Dry mouth and throat	Heartburn Nausea-vomiting Low blood pressure Colonic spasm

The data here tabulated is from references [3,4,5,6,7], given below.

When the clinical picture is suggestive of functional disorder, the diagnosis is supported by the presence of the following indications of autonomic lability:

Variable Blood Pressure
Body Temperature Variations
Changing pulse rate
Deviations in B. M. R.
Exaggerated Cold Pressure Reflex
Oculo-Cardiac Reflex Abnormalities
Glucose Tolerance Alterations

Therapy in these cases is directed toward: 1) relieving the somatic disturbance to prepare the patient for psychotherapy*; 2) guidance in making adjustment to stressful situations and correction of unhealthy attitudes.

*Drug treatment using adrenergic and cholinergic blocking agents in conjunction with sedatives. [8,9,10.]

1. Ebaugh, F.: Postgrad. Med. *4:* 208, 1948. 2. Wilbur, D.: J.A.M.A. *141:* 1199, 1949. 3. Williams, E. and Carmichael, C.: J. Nat'l. Med. Assoc. *42:* 32, 1950. 4. Goodman, L. and Gilman, A.: The Pharmacological Basis of Therapeutics, The Macmillan Co., 1941. 5. Katz, L. et al: Ann. Int. Med. *27:* 261, 1947. 6. Weiss, E. et al: Am. J. Psychiat. *107:* 264, 1950. 7. Alvarez, W.: Chicago Med. Soc. Bulletin, 581, 1950. 8. Rakoff, A.: A Course in Practical Therapeutics, Williams and Wilkins, 1948. 9. Karnosh, L. and Zucker, E.: A Handbook of Psychiatry. C. V. Mosby Co., 1945. 10. Harris, L.: Canad. M.A.J. *58:* 251, 1948.

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to start early this fall. All requests for grants are screened each year by the Medical Advisory Committee, headed by Dr. James J. Lightbody, the chapter's medical director, and the recommendations are then acted upon by the Chapter board of directors.

* * *

Russell F. Staudacher, Chicago, Executive Editor of the new *Journal of the Student American Medical Association,* has announced that the magazine, which will make its debut in January, 1952, will have a circulation of more than 33,000. The 72-page publication will go to 26,191 medical students and approximately 7,000 interns nine months of the year (skipping July, August and September when schools are closed). Appointment of Thos. R. Gardiner, Chicago, as Advertising Director assures financial success for this new publication; Mr. Gardiner's record as Business Manager of the AMA has been synonymous with efficient administration and outstanding success.

Warren R. Mullen of Jackson, Michigan (Student at University of Michigan Medical School), is President of the SAMA. The Executive Secretary, Mr. Staudacher, formerly was Assistant Public Relations Director of MSMS.

* * *

Honors to three Michigan Doctors of Medicine

Leo H. Bartemeier, M.D., Detroit, was recently chosen President of the American Psychiatric Association.

J. Milton Robb, M.D., Detroit, became President of the American Ophthalmology and Otolaryngology Society in Chicago on October 18.

Cyrus C. Sturgis, M.D., Ann Arbor, was elected President of the Interstate Postgraduate Medical Assembly of North America at its annual session in St. Louis, October 24.

Congratulations, Drs. Bartemeier, Robb and Sturgis!

* * *

Frank L. Rector, M.D., Secretary of the Michigan Cancer Control Committee, established his headquarters in the MSMS building, 606 Townsend (Box 636), Lansing 15, Michigan, as of October 3, 1951.

* * *

"Cripps Cured."—Sir Stafford Cripps—the "Mr. Austerity" of postwar Britain—came home apparently cured after eleven months of medical treatment in Switzerland. —London.

—*Detroit Free Press,* October 6, 1951.

So—he couldn't take his own (socialized) medicine!

* * *

E. I. Carr, M.D., Lansing, was presented with the National Award of American Cancer Society during the Annual Training School and Workshop, Michigan Division, American Cancer Society, held at the Kellogg Center of Michigan State College on October 11. The award is for distinguished service in the field of cancer control.

* * *

E. F. Sladek, M.D., Traverse City, was guest speaker at the September meeting of the Michigan Proctologic Society held in Grand Rapids coincident with the MSMS Annual Session. Dr. Sladek's topic was "Pediatric Proctology."

Say you saw it in the Journal of the Michigan State Medical Society



Because the action of ACTH and cortisone upon the factors of resistance to tuberculosis has been shown to be deleterious in at least three species of experimental animals (mice, guinea pigs, and rabbits) and there is strongly suggestive evidence along the same lines in human beings, it is recommended that these substances *not* be used in patients with active tuberculosis, and that they be used with extreme caution even in human beings with possibly latent tuberculosis infection, until such time as further investigative work has shown that such administration may be safe. The routine diagnostic examination for tuberculosis of patients under physicians' care is especially necessary for patients who are being considered for ACTH or cortisone therapy.—Committee on Medical Research of the American Trudeau Society.—**MICHIGAN TUBERCULOSIS ASSOCIATION.**

Max R. Burnell, M.D., Detroit, has been made chairman and T. J. Heldt, M.D., Detroit, and C. P. Mehas, M.D., Pontiac, have been appointed by the Governor as members of the State Board of Alcoholism.

Dr. Burnell recently organized the committee that is sponsoring an Institute on Alcoholism scheduled for the Veterans Memorial Building, Detroit, on November 27-28-29. Two M.D.s from Yale University will speak at this clinic, held under the auspices of the Detroit Committee on Alcohol, the Wayne County Medical Society and the Michigan State Medical Society.

* * *

J. E. McIntyre, M.D., Lansing, and **O. D. Stryker, M.D.,** Mt. Clemens, were appointed by the Governor on October 15 to the Michigan State Board of Registration in Medicine.

E. M. Vardon, M.D., Detroit, was selected by the Governor for the Advisory Council to the Board of Registration of Nurses.

* * *

Merited Acclaim.—A graceful "thank you" was said by Michigan Medical Service to five men who have rendered ten years of service on its Board of Directors.

The occasion was the annual meeting of the Board on October 10, 1951; the gesture was an inscribed Italian onyx electric clock and the recipients were: Earl I. Carr, M.D., Lansing; L. Fernald Foster, M.D., Bay City; Wm. A. Hyland, M.D., Grand Rapids; Robert L. Novy, M.D., Detroit; John Reid, Detroit.

Seldom does recognition come to those who give unstintingly of their time in the interest of their brothers.

It happened. It's news. Congratulations to MMS and to these devoted men.

* * *

Do You Know that Lincoln's Gettysburg address contains 266 words: The Ten Commandments contain 297 words; The Declaration of Independence contains 300 words and that OPS' order to reduce the price of cabbage contains 26,911 words?

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Every drop of Johnnie Walker is guarded all the way to give you *perfect* Scotch whisky . . . the same high quality the world over.



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Mrs. G. L. Hagelshaw, Assistant
District 8 & 9—Mrs. A. B. Aldrich, Hancock
Mrs. Charles R. Smith, Hancock, Assistant

* * *

Gaylord S. Bates, M.D., has announced his return to the private practice of Surgery at 1144 David Whitney Building, Detroit.

* * *

Love Is Wonderful—Oscar Ewing is Administrator of the Federal Security Agency. As such, he advocates socialized medicine.

At a press conference, President Truman was asked about certain "awards" made by Ewing. One was read:

"Dr. Robert F. Winch, of Northwestern University, has been awarded a grant to study unconscious factors governing courtship and mate-selection. The various mutual needs that enter into the choice of a marriage partner will be surveyed in the light of new findings in the field of mental health."

A reporter asked Truman: "I wonder if you can tell us what this is all about?" The President said that he could not.

"If," persisted the reporter, "when you find out what is this thing called 'love,' what are you going to do about it?" The President said that it had been going on since Adam and Eve—and supposed it always would be.

Hearty laughter followed, the report says.

It would seem that no taxpayers were present.

If this is nationalized medical research, we'll settle for a couple of aspirin tablets.—*Detroit Free Press,* Oct. 16, 1951.

* * *

The Ives amendment to the Federal Tax Bill, to permit professional persons to create a tax-free retirement fund, was dropped when the Senate Finance Committee reported out the Revenue Bill on September 18. The author of the proposed amendment, Senator Irving Ives, has promised to submit the proposal for study and hearings next year.

* * *

Oscar Ewing dangles another tempting lure before the people. This time the bait is not the whole "so-

cialized medicine' or "sickness insurance" package, but **free hospitalizatic n for old age and survivors insurance beneficiaries.**

Everyone recognizes this hospital plan as a sure-fire vote-getter (Elections in 1952!)

Action is not expected in the present Congress on this newest socialist scheme, but Ewing undoubtedly will nail this plank to the democratic platform next year.

A piecemeal program to gain socialized medicine inch by inch, rather than by one fell blow, seems to be the administration's new program. The present hospital plan is being tied up to Blue Cross-Blue Shield in the preliminary news releases (prepared undoubtedly by some of Ewing's seventy-eight public relations experts whose salaries are paid by the taxpayers).

* * *

MICHIGAN AUTHORS

Martin J. Urist, M.D., of South Haven, published an article, "Horizontal Squint with Secondary Vertical Deviations," in the American Medical Association *Archives of Ophthalmology,* September, 1951.

F. Bruce Fralick, M.D., of Ann Arbor, published an article, "Annual Reviews: The Orbit," in the American Medical Association *Archives of Ophthalmology,* September, 1951.

Reynold L. Haas, M.D., F.A.C.S., of Ann Arbor, published an article, "Pregnancy Following Conservative Operation for Endometriosis," in *Surgery, Gynecology and Obstetrics,* October, 1951, reprinted from THE JOURNAL of the Michigan State Medical Society, July, 1950.

R. O. Dingman, M.D., and **Wilbur C. Moorman, D.D.S.,** of Ann Arbor, published an article, "Temporomandibular Joint," in the *Digest of Ophthalmology and Otolaryngology,* September, 1951.

Alexander Blain III, M.D.; Frederick A. Coller, M.D., and **Gordon B. Carver, M.D.,** of Ann Arbor, published an article, "Raynaud's Disease," in *Surgery,* St. Louis, March, 1951.

Alexander Blain, III, M.D., M.S. (Surg.), F.A.C.S., of Ann Arbor, published an article, "The Surgical Management of Diseases of the Aorta and Other Arteries," in the *Quarterly Review of Surgery,* June, 1951.

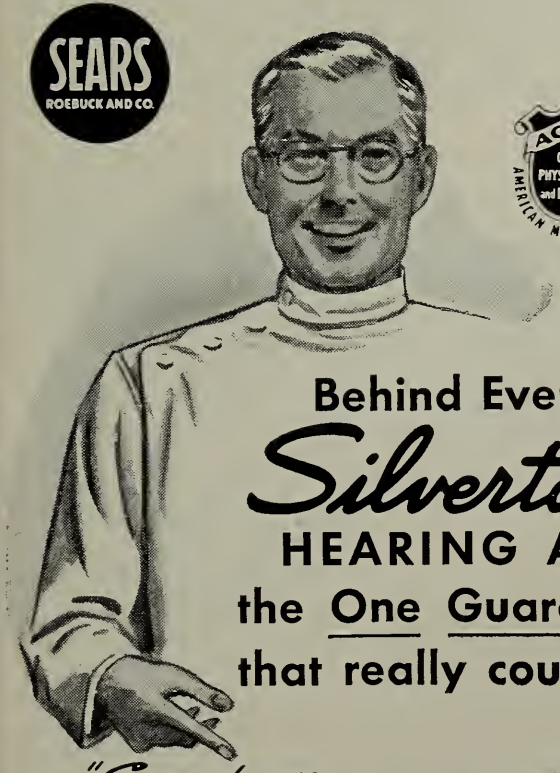
Harold E. Usndek, M.D.; William P. Curtiss, M.D. and **Edwin J. Neill, M.D.,** of Detroit, published an article, "Skin Eruption Due To Chloramphenicol (Chloromycetin®)" in the American Medical Association *Archives of Dermatology and Syphilology,* August, 1951.

J. Milton Robb, M.D., of Detroit, is the author of an original article, "Are You an Otolaryngologist?" which appeared in *JAMA* of September 22, 1951.

D. J. Leithauser, M.D., Leo Saraf, M.D., Stanley Smyka, M.D., and **Michael Sheridan, M.D.,** of Detroit, are authors of an original article, "Early Ambulation in the Prevention of Postoperative Thromboembolism," which appeared in *JAMA* of September 22, 1951.

* * *

Social Security.—The Administration has come up with a new proposal which could be an effective vote-getter in next year's election. Federal Security Ad-



- **Silvertone Hearing Aids for as little as $74.50—only $7.50 down on Sears Easy Payment Plan! (Usual carrying charges).**
- **Complete Hearing Centers at all major Sears stores . . . or order from Sears catalogue office.**

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"Satisfaction guaranteed or your money back" SEARS

ministrator Oscar Ewing says he has discovered that there's enough social security money on hand to finance free hospital care for all persons sixty-five or older. There are 7 million Americans in that age group. The Administration would like to start operating the plan in 1953.

In *Trends,* a news letter from the Union Trust Company, St. Petersburg, Fla., a news item of October 7, 1951, calls attention to this claim. There is no such money, nothing but Government notes, and they can only be paid by raising new tax money.

* * *

Urology Award.—The American Urological Association offers an annual award of $1,000.00 (first prize of $500.00, second prize $300.00 and third prize $200.00) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to men in training to become urologists.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Chalfonte-Haddon Hall, Atlantic City, New Jersey, June 23-26, 1952.

For full particulars write the Secretary, Dr. Charles H. de T. Shivers, Boardwalk National Arcade Building, Atlantic City, New Jersey. Essays must be in his hands before February 15, 1952.

* * *

Death rates in the United States for several important diseases—including acute poliomyelitis, tuberculosis, and measles—fell significantly in 1950 compared with 1949, according to Federal Security Administrator Oscar R. Ewing.

His statement was based on vital statistics compiled by the Public Health Service which released the final 1949 death rates for thirty-two selected causes of death, and estimated 1950 rates based on a 10 per cent sample of death certificates.

The death rate for acute poliomyelitis, per 100,000 population, fell off by 39 per cent in 1950. In actual numbers there were 2,720 polio deaths in 1949, and 1,690 estimated for 1950. This is believed to parallel a drop in cases reported in 1950 compared with 1949. The tuberculosis death rate dropped 16 per cent, for an estimated decrease of 5,470 deaths. The death rate for measles was cut in half, coinciding with a decline in the number of cases of measles in 1950.

Other important causes of death with decreases in death rates were gastritis and some intestinal diseases, cirrhosis of the liver, complications of pregnancy, and homicide. The maternal death rate, per 10,000 live births, dropped from 9.0 in 1949 to an estimated rate of 7.2 in 1950, a record low.

Death rates for influenza and pneumonia for 1950 increased slightly over 1949, probably as a result of the influenza epidemic during the late winter and early spring months of 1950. The death rate for diseases of the heart also increased slightly while the rate for cancer remained at about the same level in both years.

(Doesn't Oscar wish he could claim these results from his Socialized Medicine pet program?)

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International Association of Allergists.—Approximately seventy-five specialists in allergy from the United States and some twenty-five more from other parts of the Western Hemisphere attended the first world-wide congress of the International Association of Allergists in Zurich, Switzerland, September 23-29.

Those who participated as lecturers on the post-Congress symposium are: R. Levine, of the Medical Research Institute and Michael Reese Hospital, Chicago, Illinois, B. L. Baker, University of Michigan, Ann Arbor, Michigan, T. F. Dougherty, Department of Anatomy, University of Utah, Salt Lake City, Utah; D. A. Long, National Institute for Medical Research, London, England; G. Shwartzman, Mount Sinai Hospital, New York, New York, and M. Taubenhous, Michael Reese Hospital, Chicago, Illinois.

Organized six years ago under the leadership of Dr. F. W. Wittich of Minneapolis, the International Association of Allergists includes in its membership all of the known existing allergy societies of the globe including: Argentina; Australia; Belgium; Brazil; Canada; Chile; Columbia; Cuba; Great Britain; France; Germany; The Netherlands; Hungary; Israel; Italy; Mexico; Peru; Denmark; South Africa; Spain; Sweden; Switzerland, and the United States of America.

The purpose of the Association is twofold: To pool and to correlate allergy research findings on a global basis and to emphaize allergy as an established medical specialty in every nation of the civilized world.

* * *

Mount Carmel Mercy Hospital had its annual election, September 12. The following officers were elected: Roy Tupper, M.D., Chief of Staff; Thomas Boutrous, M.D., F.A.C.S., Vice Chief; J. W. Pichette, M.D., F.A.C.S., Secretary; Henry L. Smith, M.D., F.A.C.P., Chief of Medicine; Fred Hicks, M.D., F.R.C.S., F.A.C.S., Chief of Surgery; Clarey Swanson, M.D., F.A.C.S., Chief of Obstetrics and Gynecology.

* * *

Money Losses.—When all the banks of the United States were closed in 1933, the first official act of President F. D. Roosevelt, the depositors lost $2,000,000,000. During the past ten years, the holders of bonds have lost through depreciation of the value of the money over $180,000,000,000.—Hoover Commission report.

* * *

The Michigan Pathological Society held its fall meeting in Grand Rapids on September 28, 1951, in conjunction with the annual session of the Michigan State Medical Society. A symposium was held on "Lesions of the Central Nervous System," with the presentation of 24 cases by the members. James W. Kernohan, M.D., of the section on pathology of the Mayo Clinic served as moderator.

* * *

The creation of "well adult clinics," similar in function to "well baby clinics," has been recommended by Dr. William W. Frye, dean of the Louisiana State University School of Medicine. Such clinics, he asserts,

Refresh...add zest to the hour



would aid in the prevention, retardation, or possible control of the degenerative diseases and chronic illness. "The future strategy of preventive medicine must concentrate attention more and more on the problems of health in the later years of life, without for a moment forgetting youth and middle age."

* * *

Dean W. Myers, M.D., has retired after more than half a century of medical practice. He graduated from the Homeopathic Medical School of the University of Michigan in 1899, and has practiced his specialty of ophthalmology and otolaryngology. Upon announcement of his retirement, he received a nice write-up with his picture in the *Ann Arbor News*. Dr. Myers practiced in Ann Arbor for about thirty years.

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TECHNICAL METHODS FOR THE TECHNICIAN
By Anson Lee Brown, B.A., M.D., President of Anson L. Brown, Incorporated, Successor to: Dr. Brown's Clinical Laboratory and Dr. Brown's School for Technicians, Columbus, Ohio. Fourth edition. Published by The Author. Columbus, Ohio: Anson L. Brown, Inc. 1950-51. Price $10.00.

This is a detailed text on laboratory methods directed primarily toward the laboratory technician or, more properly, a student laboratory technician. The illustrations are reasonably clear and the methods outlined are definitely step by step. There is no adequate explanation for the results of most of the tests, but there are extensive tables of normals in the back of the book with methods for making the most commonly used solutions.

This is undoubtedly the text that Dr. Brown employs in his commercial laboratory training school in Ohio. While it might be satisfactory for a beginner, it is too elementary for the ordinary laboratory student with a college background and lacks clinical correlative matter.

A.A.H.

DIBLE AND DAVIE'S PATHOLOGY. An Introduction to Medicine and Surgery. By J. Henry Dible, M.B. (Glas.), F.R.C.P. (Lond.), Professor of Pathology in the University of London (Postgraduate Medical School of London), Late Professor of Pathology at the London School of Medicine for Women; Professor of Pathology in the Welsh National School of Medicine, and Professor of Pathology in the University of Liverpool. Third Edition. With 417 illustrations including 9 plates in color. Philadelphia: J. B. Lippincott Co., 1951. Price $20.00.

This is quite obviously a text for medical students, and unlike many similar American books, includes considerable bacteriology and clinical pathology. The addition of tables for the bacteriological identification of organisms and the detailed description of such laboratory procedures as the urea clearance test may be a unique but questionable inclusion when a thin portion of eleven pages is devoted to an important, and more closely related subject, such as gynecological pathology. Many statements are

(Continued on Page 1300)



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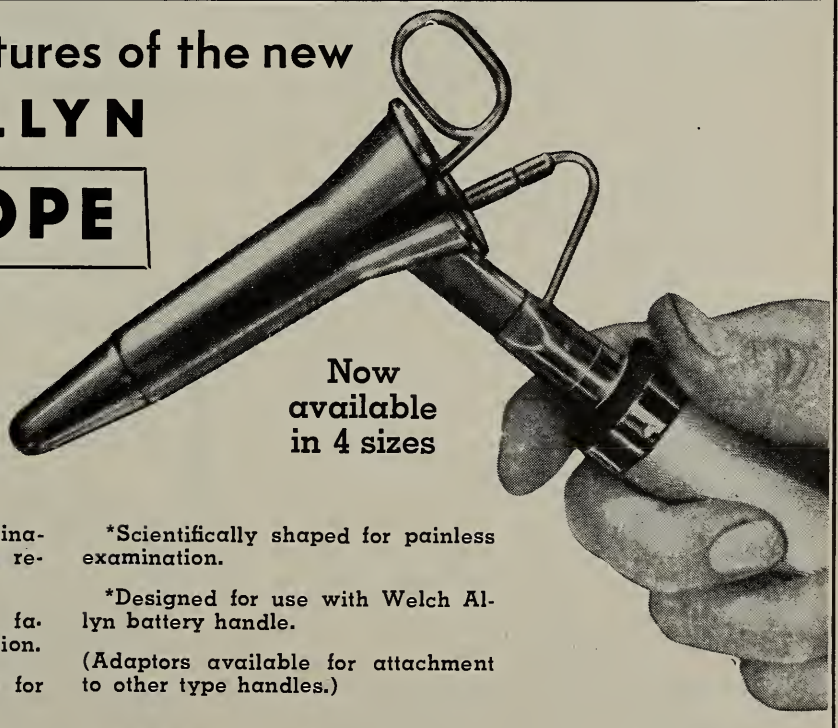
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dogmatic and fail to present a clear picture of the matter under discussion, others are frankly dubious, or erroneous, e.g., that portion dealing with sickle cell anemia where the reader is informed that in this condition the bleeding and coagulation time are prolonged. It is moderately well illustrated and some of the diagrams are good but it suffers from a lack of good colored plates. The use of British nomenclature without any marked attempt to employ the American equivalent is not conducive to clear understanding.

The average physician in this country would be wiser to purchase one of two contemporary books on this subject by American authors, either one of these being far better and much cheaper. A. A. H.

LOW-SODIUM DIET. A Manual for the Patient. By Thurman B. Rice, A.M., M.D., Professor of Public Health Indiana University School of Medicine, Indianapolis, Indiana. Philadelphia: Lea & Febiger, 1951. Price $2.75.

Low sodium or salt diets are becoming more frequently advisable, and this little book is written with the intent to make use of much more information than simply to stop salt. Foods are studied and lists given, also forms of sodium found in the diet, and elimination. A well-developed chapter on the preparation of foods to be used in low sodium diets is of value. The language used is such that the patient may follow and readily understand. In other words, this book will be very useful in the hands of the patient.

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CONGENITAL URETHRAL VALVES

(Continued from Page 1247)

of these seven have shown improved renal function, or appreciable diminution of their hydronephroses. Both these children have now had the valves removed and both can void normally when the suprapubic tube is clamped. The tubes will probably be removed during the next few months. The degree of improvement in one of them is shown in Figure 7.

Of the eleven patients who were able to void per urethra, the result was perfect in eight, and any hydronephrosis present before operation has returned almost to normal. Three have not yet attained perfect micturition, two having slight difficulty, and one is now incontinent. The difficulty in micturition does not seem to be due to obstruction for the stream is of good size. It seems more likely that the normal rhythm of micturition is at fault, perhaps because the bladder has suffered from long overdistention, or perhaps because the children have never known how to initiate micturition other than by prolonged straining.

The four patients who died could probably never have been saved. Five patients who are likely to have permanent cystostomies comprise a group of children who are still seriously ill and who probably will not live many years. But the history of these five patients and of two of these who died shows that they had all had symptoms of obstruction or infection for at least one year before any treatment was considered, while two had symptoms for twelve years. It is such histories which should serve as a reminder that any young boy with dysuria, incontinence or a urinary tract infection may have congenital urethral valves. When such a child is found to urinate with difficulty or urinates with an interrupted stream, he should have a complete investigation of the urinary tract.

Extreme care must be exercised in the evaluation of the effect of therapy in individual cases with cancer. The statistical analysis of final results on sufficiently large groups consisting of adequately controlled cases is the only method by which cure or prolongation of life can be acceptably substantiated.

* * *

Multiple unrelated neoplasms are found in at least 4 per cent of patients with cancers coming to necropsy.

* * *

In chronic lymphatic leukemia the most effective form of therapy is the localized use of roentgen ray over the enlarged glands or the spleen.

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(Continued from Page 1222)

Michigan Association of Osteopathic Physicians and Surgeons at their 53rd annual convention in Grand Rapids last week.

Mr. Pattullo defended increases in doctors' fees and hospital rates, however, contending that they had gone up in cost no faster than the cost of living generally.

Mr. Pattullo also said that the hospital's function is gradually changing and that in the future one might expect to see the hospital used more for the care of the chronically ill than is the case now.

There is considerable evidence that many people who are now chronically ill and are "kept" at home or put in nursing homes, can be rehabilitated through proper medical care. More and more the hospital will serve those who have what now are regarded as "not serious," but who nevertheless can serve no useful function while they are chronically ill, Mr. Pattullo predicts.

Roentgen therapy is ineffective—in fact, it may be harmful—in patients with the acute and subacute forms of leukemia.

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COORDINATED PLANNING IN TUBERCULOSIS CONTROL

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President
Michigan Heart Association



Franklin Johnston, M.D.,
Chairman, Research Committee, Michigan Heart Association

Research Committee Members

L. Paul Ralph, M.D.
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Jackson
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Chairman, Program Committee, Michigan Heart Association

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Editor
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Copyright, 1951, by Michigan State Medical Society

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 4, Minnesota.

Entered at the post office at Saint Paul, Minnesota, as second class matter, May 7, 1930, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103 Act of October 3, 1917, authorized August 7, 1918.

Yearly subscription rate, $5.00; single copies, 50 cents. Additional postage; Canada, $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

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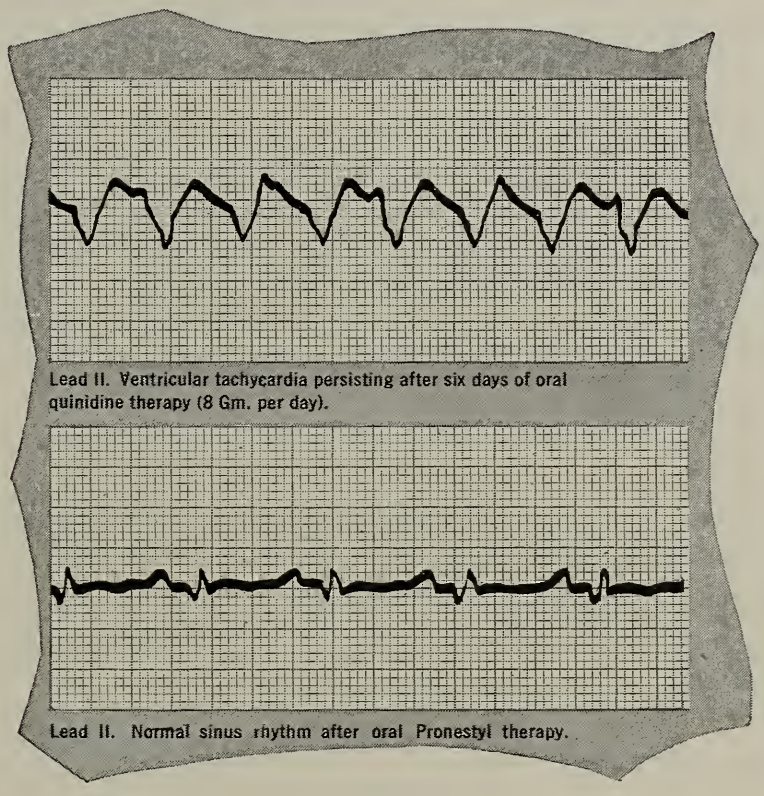
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(Continued on Page 1312)



All Children Can Benefit from *this* Protective Hot Drink at Breakfast

In its widely distributed leaflet No. 268, "Eat a Good Breakfast," the U. S. Dept. of Agriculture states: "Summer or winter, there's something hot, as a rule, in a good breakfast.... Something hot is cheering and tones up the whole digestive route."

The problem of encouraging children to eat an adequately protective breakfast finds easier solution when Ovaltine in hot milk is recommended as a breakfast beverage. Many children clamor for a hot drink at the morning meal, and hot Ovaltine is the right kind of drink to recommend.

A cup of hot Ovaltine makes an excellent contribution of virtually all essential nutrients, adding substantially to the nutritional start for the day. It also serves in a gustatory capacity by enhancing the appeal of breakfast and making other foods more inviting.

The nutrient contribution made by a cup of Ovaltine is apparent from the table below. Note the wealth of essentials added to the nutritional intake by making the simple recommendation of adding a cup of hot Ovaltine to the child's breakfast.

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Ovaltine

Here are the nutrients that a cupful of hot Ovaltine, made of ½ oz. of Ovaltine and 8 fl. oz. of whole milk,* provides:

PROTEIN	10.5 Gm.	IRON	4 mg.	NIACIN	2.3 mg.
FAT	10.5 Gm.	COPPER	0.2 mg.	VITAMIN C	10 mg.
CARBOHYDRATE	22 Gm.	VITAMIN A	1000 I.U.	VITAMIN D	140 I.U.
CALCIUM	370 mg.	VITAMIN B_1	0.39 mg.	CALORIES	225
PHOSPHORUS	315 mg.	RIBOFLAVIN	0.7 mg.		

*Based on average reported values for milk.

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(Continued from Page 1310)

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You and Your Business

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

1952	
Jan. 30	Mt. Carmel Mercy Hospital Clinic Day Detroit
March 12-14	MICHIGAN CLINICAL INSTITUTE .....Detroit
March 14	Michigan Heart Day (part of M.C.I.) Detroit
Spring	MSMS Postgraduate Extramural Courses ..... State-wide
April 3	Jackson County Medical Society's Clinic Day ..... Jackson
April 9	Genesee County Medical Society's Cancer Day .....Flint
April	Highland Park Physicians Club Clinic Highland Park
April 24-25	International College of Surgeons (Regional Meeting for Seven States) Detroit
May 1	Ingham County Medical Society's Clinic Day ..... Lansing
May 7	Third Michigan Industrial Health Day .....Flint
May 14	Wayne University Medical Alumni Clinic Day and Reunion.....Detroit
June 9-13	AMA Annual Session.....Chicago
July	Annual Coller-Penberthy Medical Surgical Conference .....Traverse City
August	Third Annual Clinic, Central Michigan Committee, ACS Michigan Committee on Trauma, plus Michigan National Guard Medical Personnel, and Michigan Society of North Central Counties .....Grayling
Sept. 24-26	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION Detroit
Autumn	MSMS Postgraduate Extramural Courses ..... State-wide

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

WORD GETS AROUND ABOUT MSMS ACTIVITIES

What they are saying about the new 16 mm. sound and color film, "To Save Your Life":

1. Donald G. Anderson, M.D., Secretary, Council on Medical Education and Hospitals, American Medical Association—"It is the best movie I have yet seen for portraying to the high school and college student the path that must be followed to become a physician."

2. Ralph P. Creer, Secretary, Committee on Medical Motion Pictures, American Medical Association—"an excellent job with a very small budget."

What they are saying about the pamphlet "Planning Your Career"

3. Helen Yast, Assistant Librarian, American Hospital Association—"This has proved to be one of the most popular items we ever offered our members."

4. Captain Patrick J. Pomphrey, Headquarters, U.S.A.F. Hospital, Offutt Air Force Base, Omaha, Nebraska—"We were able to obtain, through the American Hospital Association, a loan copy of your brochure, 'Planning Your Career.' Our entire personnel displayed such interest in the pamphlet that we delayed returning it for some time."

5. S. Tanner Stafford, Hospital Administrator, The Florida Agricultural and Mechanical College, Tallahassee, Florida—"I would appreciate receiving a copy of the most excellently done brochure, 'Planning Your Career as a Medical Associate.' . . . this would be of invaluable aid to us."

GREAT GROWTH OF VOLUNTARY PLANS

Voluntary sickness cover plans show big gains: surgical expense insurance was owned in 1950 by 54,477,000 persons as compared with 41,143,000 the previous year (an increase of 32 per cent).

Medical expense coverage gained 28 per cent from 16,862,000 to 21,589,000.

The Health Insurance Council estimates that the 1950 total was equivalent to coverage on approximately 60 per cent of employed civilian population of the United States.

(Continued on Page 1316)

For every requirement of thorough rectal examination and treatment . . . .

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DISTALLY ILLUMINATED PROCTOSCOPES AND SIGMOIDOSCOPES

Abundant illumination is provided directly at the area under observation, together with an unobstructed view for diagnosis or treatment. The inner tube is optically designed to reduce the annoying glare usually found in this type of instrument. The obturator tip is tapered and curved to facilitate the passage of the instrument through the sphincter muscle and by the prostate gland region.



No. 308 SIGMOIDOSCOPE—21 mm. diameter, 25 cm. length, with inflating bulb $30.00



No. 318 SET—Contains No. 308 sigmoidoscope, No. 300 proctoscope, No. 304 infant proctoscope, No. 342 biopsy punch, No. 280 medium anoscope, rectal probe and hook, No. 700 battery handle, No. 725 cord and inflating bulb, all in attractive case.....$169.50

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(Continued from Page 1314)

INDUSTRIAL HEALTH DAY

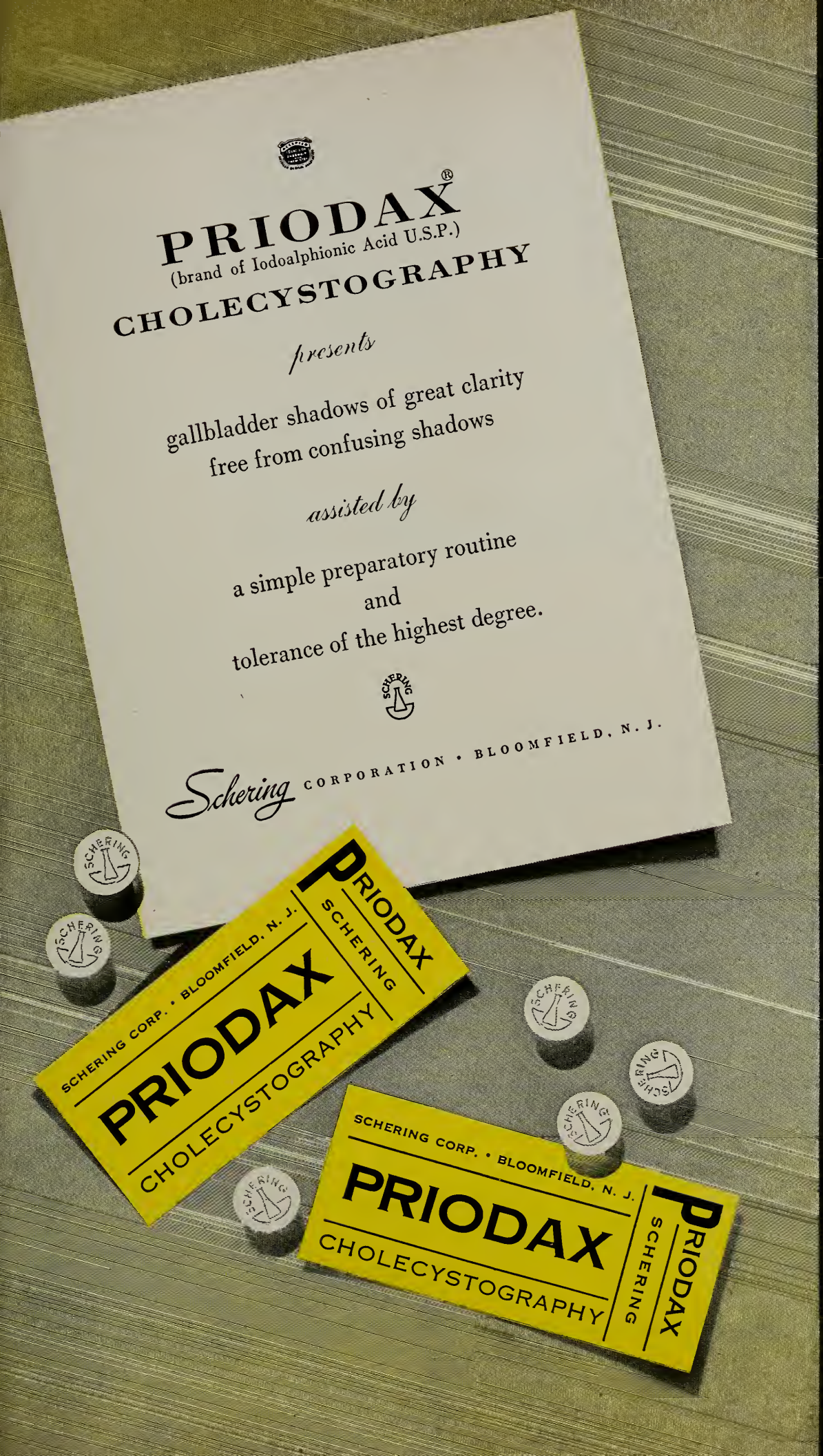
The Third Michigan Industrial Health Day will be held in Flint on May 7, 1952. The scientific meeting will be at Hurley Hospital, and the dinner will be at the Durant Hotel, Flint.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL OCTOBER 17, 1951

Seventy-one (71) items were considered by the Executive Committee of The Council at its October meeting held in the new MSMS "home" at 606 Townsend Street, Lansing. Chief in importance were:

- Monthly financial reports were presented, studied and approved. Bills payable were inspected and authorized to be paid. Annual and quarterly (to September 30, 1951) financial reports of the Cancer Control Committee were studied and approved.
- 606 Townsend Street, Lansing: (a) Straight insurance of $59,000 ($49,000 on the building and $10,000 on the contents) on a five-year term was authorized; (b) The Cancer Control Committee Secretary, F. L. Rector, M.D., moved from Jackson to the MSMS headquarters on October 3, 1951.
- Guest editorial for Bulletin of American Academy of General Practice of Wayne County, written as per instructions of The Council on September 23, was presented and approved for submission to the Editor of BAAGP of Wayne County.
- Legal Counsel J. Joseph Herbert reported on two matters having to do with taxation.
- Public Relations Counsel H. W. Brenneman presented a plan of distribution of the new MSMS film "To Save Your Life"; also on the possibility of the MSMS TV show "It's Your Life" being sponsored for one year by a Detroit firm. The Executive Committee of The Council authorized contacts with the 15 largest county medical societies of Michigan re holding "Formula for Freedom Nights."
- Adult Education. A long-range plan for cooperation with the adult education system of Michigan in the purveying of health information to the people participating in adult education classes was presented and approved.
- Periodic Health Appraisal. A committee to cooperate with the Michigan Health Council on this subject, to be known as the "Joint Committee (MSMS-MHC) to Study Periodic Health Appraisal" was approved. The recommendation of E. F. Sladek, M.D., of Traverse City that a motion picture presenting the periodic health appraisal idea be produced was referred to this new committee as well as to the Cinema Committee (a sub-committee of the MSMS Public Relations Committee).
- Sarah S. Schooten, M.D., Detroit, was renominated as MSMS representative to the Committee on Careers in Nursing, a Committee of the Michigan Nursing Center Association; J. S. DeTar, M.D., Milan, was appointed as Delegate and R. W. Teed, M.D., Ann Arbor, was appointed as Alternate to the Michigan Health Council, as MSMS representatives.
- Two resolutions (one from Arkansas Medical Society re Veterans Administration, and one from the Ohio State Medical Association re permanent site for AMA Clinical Session of House of Delegates) were referred to Michigan's Delegates to the AMA House of Delegates.
- Resolution of appreciation from Woman's Auxiliary to Michigan State Medical Society was read and received with thanks.
- Report of Special Committee (of The Council) on Selection of Expert Witnesses was presented and approved.
- Beaumont Memorial Restoration: President Otto O. Beck, M.D., Birmingham, stated this is an opportunity for doctors of medicine to bring to themselves great credit by making an all-out effort in the 1951-52 MSMS year to secure sufficient money to restore the old American Fur Company store on Mackinac Island to make it into a Beaumont Memorial or Museum. Dr. Beck's recommendations for a campaign and necessary publicity were approved.
- Report of Committee on Study of Group Malpractice Insurance (a committee of The Council) was presented and approved.
- The Committees of The Council for the year 1951-52, as appointed by Chairman William Bromme, M.D., Detroit, were approved by the Executive Committee of The Council.
- State Health Commissioner A. E. Heustis, M.D.,

(Continued on Page 1318)



PRIODAX

SCHERING

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 1316)

discussed the new "Rules and Regulations for Hospitals with Maternity Departments," as developed by the State Department of Health in accordance with the 1951 law.

CONSULTANT'S SERVICES

Does an attending physician have authority to engage on behalf of his patient the services of a consultant, without express authority or consent of the patient? As far as we are able to determine, this specific question has never been directly passed on by any appellate court. There are no cases in point in the Michigan Reports. Nor do encyclopedias or text books comment on the exact point.

One must, therefore, have resort to general principles of the law of agency and the doctor-patient relationship to reach a reasonable conclusion, which, however, may not coincide with the opinion of a court were the situation brought into litigation.

In many cases, when a patient engages a doctor to treat and attend him, there is implied authority to commit the patient to certain expenses and even services by others, e.g., making x-ray plates by technicians or roentgenologists, or in surgical operations, the services of anesthetists and surgical nurses. Certainly, when a medical emergency arises and the patient is unconscious, or is not in condition to discuss the situation, the attending physician has implied authority to do on humanitarian grounds what in his judgment is medically indicated. However, there is grave doubt that in ordinary cases the attending physician is authorized to engage a consultant without express consent of the patient, if the patient is in condition to give such authority or consent. In other words, it is highly questionable that the mere engagement of a physician to diagnose or treat a patient gives such physician blanket authority to engage other physicians without the patient's express consent. As pointed out, emergent or peculiar circumstances may tend to ameliorate this conclusion. And the mere fact that the patient does not object when a consultant examines him is not sufficient, in my opinion, to be regarded as consent to pay for his services. It is not uncommon for physicians to call in professional colleagues to view unusual cases, and a patient cannot be presumed to have engaged the services of an additional physician merely because he does not object to his viewing or even examining him.

To obviate the troublesome question of whether or not the patient shall be chargeable for consultant's services, it is recommended that, whenever possible, express consent be obtained from the patient to engage a consultant on his behalf.

(Excerpted from opinion by J. Joseph Herbert, MSMS Legal Counsel)

CONFERENCE ON PHYSICIAN PLACEMENT

A conference dealing with physician placement and the distribution of physicians in general was held at AMA headquarters in Chicago on October 20.

The conference, called by the AMA Council on Medical Service, was attended by representatives of the American Academy of General Practice, the Association of American Medical Colleges and several councils and bureaus of the AMA, as well as by representatives from the following ten state medical societies which have effective placement programs in operation: Illinois, Kansas, Michigan, Wisconsin, Missouri, Nebraska, Ohio, Texas, Virginia and Mississippi.

Discussions covered all aspects of physician placement problems, including maintenance of lists of communities seeking physicians and of lists of physicians seeking locations; co-operation with medical schools and hospitals in an effort to interest students, interns and residents in general practice in small communities; ways and means of assisting communities in developing projects which will attract qualified physicians; relationship between the AMA Physicians Placement Service and the state placement services, and the feasibilty of a revolving fund to assist physicians in locating in areas where they are most needed.

The conclusions agreed upon are to be discussed in November by the council's Committee on Extension of Hospitals and Other Facilities. Ralph A. Johnson, M.D., of Detroit, a member of this committee, served as chairman of the conference.

VOLUNTARY SICKNESS COVER PLANS SHOW BIG GAINS

Reflecting the continuing desire of Americans to choose their own methods of meeting the costs of illness, all forms of voluntary health protection scored tremendous gains in 1950 to set new records, the Health Insurance Council reports in the fourth annual edition of its Survey of Accident and Health Coverage in the United States.

The council survey shows that hospital expense coverage, which is the form most widely sold, was held by 76,961,000 persons at the end of 1950, a gain of 17% over the figure of 66,044,000 estimated for the year previous. The number of persons protected under hos-

(Continued on Page 1320)

Table without salt, mouth without saliva –

Randle Cotgrave (1611)[1]



The thought of meals without salt is unappealing to most patients who are placed on a salt-restricted diet.

The prescription of Neocurtasal can prove to be a most encouraging measure.

Neocurtasal is a "trustworthy, nonsodium-containing salt substitute"[2] designed to make the low sodium diet palatable.

For all salt (sodium)-free diets – Neocurtasal may be used wherever sodium restriction is indicated: congestive heart failure, hypertension, arteriosclerosis, pregnancy (to forestall tendency to fluid retention). It contains potassium chloride, ammonium chloride, potassium formate, calcium formate, magnesium citrate and starch. Potassium content 36%; chloride 39.3%; calcium 0.3%; magnesium 0.2%.

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1. From Burton Stevenson's "Home Book of Proverbs, Maxims and Familiar Phrases:" Macmillan Co., 1948, p. 2028.
2. Heller, E. M.: The Treatment of Essential Hypertension. *Canad. Med. Assn. Jour.*, 61:293-299, Sept., 1949.

VOLUNTARY SICKNESS COVER PLANS SHOW BIG GAINS

(Continued from Page 1318)

pital coverage has more than doubled since the end of the war.

Surgical expense insurance is owned by 54,477,000 as compared with 41,143,000 a year earlier, an increase of 32 per cent.

Medical expense coverage gained 28 per cent from 16,862,000 to 21,589,000.

Weekly indemnity coverage also increased, and in 1950 was provided to 37,293,000 persons against 34,-136,000 at the end of 1949, a gain of 9 per cent.

The council estimates that the 1950 total was equivalent to coverage on approximately 60 per cent of employed civilian population. The figures do not include the individuals covered solely by government insurance under compulsory plans, but do include all insurance companies, Blue Cross, Blue Shield, fraternal societies, local medical societies, industry, universities and others. —Insurance Economic Surveys, October, 1951.

SIXTEEN THOUSAND IN NINETY FOREIGN LANDS DRAWING $6 MILLION A YEAR

Angelo Paisano has worked hard in America. Now he's sixty-five and he has gone back to Italy to live on his Social Security pension. He could be a big shot in his native village.

Angelo is one of some 16,000 persons who drew $6,309,000 monthly pension checks in ninety countries outside the United States last year. That averages a little over $39 a month—not so much, figured in American living standards. But despite higher living costs in Italy and everywhere else what a man must have in those places to keep up with the neighbors is much less than it is in the States.

If Angelo, who you must understand, signore, is a type, not a real person, is a single man and worked for low wages only part of the time since taxes began to be taken from his pay envelope in 1937, he will probably draw the minimum—$20 American. At present exchange rates he gets 12,500 lira for his $20. If he draws the average of $39 a month, the local bank gives him some 25,000 lira. Not too bad, when you consider that a highly skilled mechanic in Italy is paid around 37,000 lira monthly and by his standards keeps a family fairly well on it.

But even with the minimum of $20, if Angelo has a wife who is also past 65, they get $30 a month American, or nearly 19,000 lira.

If Angelo has been lucky and has been paid better than $3,000 a year in America since 1937, and has worked steady all the time, he will get the maximum annuity payable today, $68.50. Since his wife is entitled to 50 per cent additional, their monthly income in good U. S. dollars will be $102.50, or the magnificent sum of 64,000 lira. That's big dough in Angelo's home town.

Italy had the greatest number of U. S. social pensioners during the last month of account, June, when 5,245 persons got $210,387 during the month. Canada was second with 3,205 persons drawing $127,090. Greece was third with 1,249 persons getting $46,209.

Other principal countries, with number of pensioners and dollar totals for that month, were: United Kingdom and Northern Ireland, 908 persons, $37,468; Sweden, 553 persons, $24,637; Ireland, 519 persons, $21,890; Norway, 510 persons, $21,533; Yugoslavia, 427 persons, $15,220; Mexico, 531 persons, $14,611; France, 154 persons, $6,585, and Japan, 174 persons, $5,989. *(Chicago Daily News,* Sept. 22, 1951).—Insurance Economic Surveys, October, 1951.

NIGHT CLUBS AND TAXES

President Truman in a speech at the dedication of the new $25,000,000 government General Accounting Office building in Washington said:

"A man will go to a night club and throw away $30 or $40, and think nothing of it, but let him get a tax bill for $30 and listen to him scream.

"I would not want any one to give up his time-honored right to complain about paying taxes. If people couldn't blow off steam that way sometimes, they might explode."

How many persons with an annual income tax of $30 are prospective night club frequenters? Under the 1950 Federal Income tax schedule a single man with no dependents would have an annual income of not over $850.00, or $16.34 per week—not a night club prospect! A married man with only his wife as dependent could earn $1,525 per year, ($29.53 per week). A married man with two children to pay a $30 income tax would have to earn $2,850 per year ($54.80 per week). The plutocrat with the most earnings to qualify and to scream about a $30 tax bill would be a man listing seven dependents, and earning $4,800.00 per year. These figures were supplied Congressman Paul Shafer, of Michigan.

GOVERNMENT CIVILIAN EMPLOYES

Senator Byrd (D.Va.), Chairman of the Joint Committee on Reduction of Non-Essential Federal Expenditures, reports:

The total number of civilian employes in the Executive branch of the Government is now past the two and one-half million mark for the first time in five years. The civilian payroll for the fiscal year which ended June 30, 1951, totaled $7,719,076,000, a 17 per cent increase over the previous year. Indications are that the payroll this current year will approach, if not exceed, $10 billion—compared with the World War II peak of $8.3 billion.

Of course, there are thousands of necessary, conscientious and capable federal employes. But there are also thousands of unnecessary ones, thousands who lack the competence to make good in private employment, thousands who waste hours in department cafeterias and lounges or in needless paper-shuffling. And one of the most disturbing features of the situation is the failure of the present Congress to approve payroll reduction amendments to appropriation bills.

physiologic "booster" to counter stress



In situations of bodily stress, endogenous output of adrenal cortical hormones often proves unequal to surging physiologic need. Adrenal cortical function warrants therapeutic support in patients with severe burns or infections as well as in medical and surgical convalescence complicated by adrenal insufficiency. For an exogenous "booster" source to help meet the demands of such stressful states . . .

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10 cc. and 50 cc. vials of sterile solution for subcutaneous, intramuscular, or intravenous injection.

The potency, purity and standardized metabolic range of this and other products are pioneering contributions to medical practice from Upjohn research in adrenal physiology and in the elaboration of extracts providing *all* the vital adrenal cortical hormones.

Each cc. of Upjohn Adrenal Cortex Extract contains the biological activity equivalent of 0.1 mg. of 17-hydroxycorticosterone, as standardized by the Rat Liver-Glycogen Deposition test. Alcohol 10%.

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Public Relations

CLOSER TIES BETWEEN VARIOUS PROFESSIONS URGED

"If it is possible for groups like this to get together socially, then it should be possible, also, for us to meet in more concrete ways for the discussion of our related problems; for the exchange of information and experiences; for a better understanding of each other as professional men and citizens, and for the ultimate improvement of the services we represent."

This, briefly, was the keynote of the talk on "Professional Inter-Relationship" given to sixty doctors, dentists and pharmacists of the Upper Peninsula at a dinner-meeting, November 1, in the Dickinson Hotel by Dr. Austin Smith, editor of the AMA *Journal*. Dr. Smith was the principal speaker at a meeting—the first of its kind in the Upper Peninsula—which attracted medical men and pharmacists from Houghton, Iron, Delta, Marquette and Menominee counties, in upper Michigan, and Niagara, Wis.

Dr. Smith recently succeeded Dr. Morris Fishbein as AMA *Journal* editor, and it was the first time since his appointment that he had visited in upper Michigan.

Dr. H. D. McEachran, Iron Mountain, president of the Dickinson-Iron County Medical Society, was chairman of arrangements for the physicians; Dr. A. E. Miller for the dentists and A. G. Buchman, dean of upper Michigan druggists and member of the Michigan state board of pharmacy, for the pharmacists of the peninsula.

Dr. McEachran and Mr. Buchman shared toastmaster duties and introduced the principal guests. Dr. W. H. Huron, Iron Mountain, presented Dr. Smith, AMA speaker.

Dr. Smith opened his talk with an account of a recent trip to Europe during which he visited many countries of the continent—Norway, Sweden, Denmark, Switzerland and England, among others. "This experience," he said, "gave me an opportunity to more fully appreciate the kind of life and understanding that we have in the United States, and particularly the interest and interrelationship between business and professional people and their fellow citizens within the community."

Here the speaker compared the relationship—or lack of it, in some instances—between professional groups in various countries of Europe with the freedom of thought and expression as exemplified in this country.

"I have found," Dr. Smith continued, "that there is only one country in the world where you can meet as you are here tonight, both as representatives of professional groups in your home communities and as citizens of a free nation. It can be done, in just this way, only in the United States of America.

"I understand, however, that this is the first meeting of its kind to be held in the Upper Peninsula of Michigan. There will be more, however, and out of them will come much that will be mutually valuable. It is a splendid example and a practical illustration of how groups whose interests are interallied can work together for the common good."

"Citizens First"

Dr. Smith emphasized that professional men, generally, as well as all others in a free world, must recognize that they are, first, citizens of a commonwealth.

"Our first responsibility is to our country, even before our professional responsibility. As professional men we are merely practicing some specific aspect of the life of a citizen, and our professionalism must be secondary to our citizenship."

Returning to an account of his trip to Europe, Dr. Smith pointed out the difficulties which confront professional men in various countries of the world today, particularly as to the availability of drugs and other supplies and equipment with which to effectively carry on their work. In Germany, particularly, he said, physicians, dentists and pharmacists are having a difficult time.

"In some instances," the speaker said, "they can eke out only the barest existence, and, of course, they can perform only a minimum of professional service to the community."

Dr. Smith also portrayed the reaction of the people in various sections of Europe.

"It is not altogether a happy picture," he said. "In some respects, in fact, there is cause for genuine worry about the attitude toward the United States and toward us as Americans."

Depressing Picture

"In western Germany, particularly," the speaker said, "the picture is depressing. It will take some time to wipe out the ideology which has been deeply ingrained

(Continued on Page 1330)



Good Wishes and Good Health for 1952

Here are our resolutions for 1952. Nothing elaborate, perhaps; not even anything new. But . . . We will continue to work in close cooperation with our many friends in the medical profession. We will continue to supply nature's most nearly perfect food, priced as economically as possible. And we will continue to have a healthful dairy product to meet most specific dietary needs. May the coming year bring the best of everything to you and your patients.

Borden's

Michigan Milk Division
Detroit, Michigan

Poliomyelitis Respirator Center

University Hospital, University of Michigan

With the establishment of a new Poliomyelitis Respirator Center at the University Hospital under sponsorship of the National Foundation for Infantile Paralysis, questions related to its admission policies have arisen.

In order to clarify the specialized service this unit will provide in this area and the type of patients that will be accepted as candidates for transfer to the Center, the following information is submitted.

Purpose and Functions of the Center

The program will be directed toward three major objectives.

Patient Evaluation and Trial Treatment.—This phase of the program involves a co-ordinated effort to gradually separate the patient from the respiratory aids while assuring maximum functional return and efficient use of remaining muscle groups through intensive physiotherapy and functional re-education. The final goal will be a pre-arranged and continuing program of care and rehabilitation in the patient's home environment.

Education.—Hospital physicians, nurses, and medical students will be trained in problems associated with such patients. Special courses to other interested physicians, nurses, and technical personnel will also be offered.

Clinical Investigation.—The third purpose of the Center is to assist in overcoming current deficiencies in our knowledge concerning the abnormal physiology of severely paralyzed poliomyelitis patients requiring a respirator. Clinical evaluation of new respirator equipment will also be carried on.

General Considerations for Admission

For the present, the Center must be limited in size to a capacity of eight beds. Admission will necessarily be highly selective due to the inflexibility of present facilities, unavailability of trained personnel, and the specialized purposes of the Center. Close screening of admissions is further necessary to avoid diverting the efforts of the Center wholly toward custodial care.

1. Due to the necessity for the careful selection of patients at this specialized Center, *it is asked that patients be transferred to it only with prior approval of the Respirator Center staff.*

2. Selection will be based on medical need. Final acceptance of patients will rest with a committee of physicians responsible for the operation of the Center.

This selection and acceptance will include a careful review of the patient's clinical situation. When indicated, the Center will provide a staff physician to discuss the problem with the responsible physician and visit the prospective patient for the purpose of examination.

3. Preference will be given to patients most likely to profit by the Center's rehabilitative functions:

(a) Patients who can be weaned eventually from the respirator and returned to home environment.

(b) Patients able to profit from the physical medicine and functional training program. (This, of course, does not mean that severely paralyzed patients would not be acceptable. For example, selection of a patient with trainable muscle groups in one arm would be preferred over a patient without residual muscle function although each candidate may be severely paralyzed.)

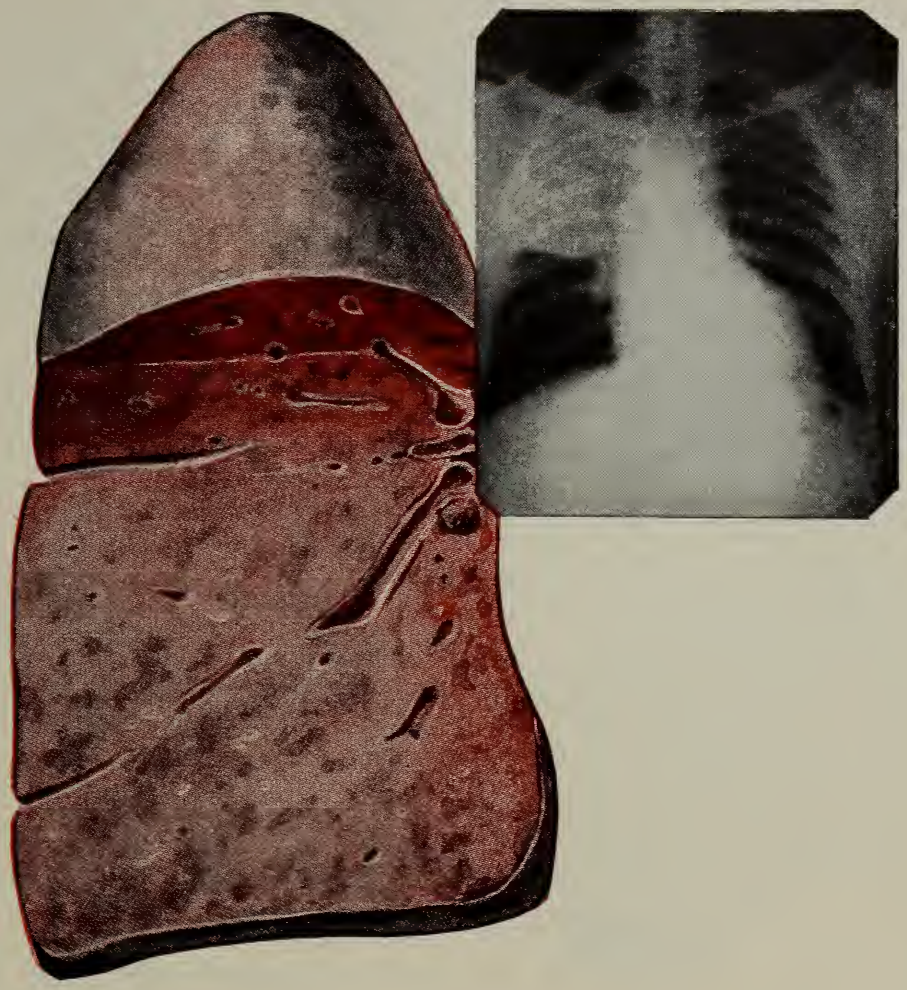
(c) Patients with most recent onset of paralysis will be preferred over those with long standing paralysis since a better opportunity for training and weaning from the respirator exists. However, patients with long standing paralysis will not be eliminated from consideration.

Applications

Each application will receive careful consideration when submitted. If a bed is not immediately available, the application will be held. As a bed becomes available, all applications will be reconsidered on an equal basis. Priority will be based on medical need of the current applicant patients and not on the order in which the applications have been filed.

The National Foundation for Infantile Paralysis, Inc., and the University Hospital hope that the resources of the Respirator Center can be extended to as many patients as possible in this area. Physicians responsible for care of poliomyelitis patients are welcome to initiate application *by letter* to:

David G. Dickinson, M.D., Director
Poliomyelitis Respirator Center
University Hospital
Ann Arbor, Michigan



in lobar pneumonia:

The prompt response to Terramycin therapy in lobar pneumonia is consistent with results obtained in primary atypical pneumonia, bronchopneumonia and many other infections of the respiratory tract. In a typical series of pediatric cases, Terramycin-treated, "temperatures returned to normal in 24 to 48 hours after therapy was begun. The clinical appearance of marked improvement took place during the same period."

Potterfield, T. G., and Starkweather, G. A.: J. Philadelphia General Hosp. 2:6 (Jan.) 1951

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Quo Vadimus?

By Paul R. Hawley, M.D.
Director, American College of Surgeons
Chicago, Illinois

IT SEEMS to me that the difficulties in which the medical profession now finds itself are due, in large part, to the failure of doctors to realize that a social revolution has been in progress in this country for three decades, and that it has undergone considerable acceleration in the past seventeen years. The profession, as a whole, has been inclined to regard compulsory health insurance as a new and discrete issue, whereas it is only a small part and, if I may be pardoned for saying it, not the most important part of a growing movement to socialize this country.

Because of the nature of my own professional career, these changes are particularly evident to me. Before World War I, I entered the Regular Army. In so far as any contact with social or political trends is concerned, I might as well have entered the most secluded monastic order. For 30 years I was withdrawn from the world of practical affairs.

I left a society in which industry and thrift were cardinal virtues, in which most citizens undertook to provide security for their families through honest and conscientious endeavor; a society which annually attracted hundreds of thousands of underprivileged people from other lands because it offered freedom and opportunity, and not because it promised a place on relief rolls the day of arrival; a society in which men abhorred charity whether charity came from private or public sources; a society in which men demanded as their right only enjoyment of the products of their own labor. The theory that the world owes every man a living, the theory that government will provide whatever the individual is disinclined to provide for himself had not yet been advanced—much less accepted.

I left a society in which workmen took a justifiable pride in their handiwork; a society in which anyone claiming to be a bricklayer would have been ashamed to lay less than 1,200 bricks in a working day—and in which the elite of the trade boasted of their ability to lay 1,500. It was years later that organizations of labor limited the production of these workmen to 400 bricks per day, thereby transforming expert craftsmen into indifferent jobholders.

I left a society in which the only "Freedoms" men demanded were freedoms *to*—not freedoms *from* something or other—not "freedom from want" but freedom to provide against want by retaining the rewards of their industry instead of turning over the lion's share to an extravagant and incompetent government.

So have we changed for the worse in this country; and it is apparent that, unless these trends be checked and checked soon, they will destroy the last land of opportunity left in this sick world. Those who have lived through this revolution day by day cannot comprehend the magnitude of the changes that have already occurred. To realize them fully, one must have been removed from daily contact with this subtle and insidious weakening of our national fiber. Be not deceived, however. Many medical men seem to think that present trends can be reversed, and that we may return to the status quo ante. I am afraid this is wishful thinking. It is contrary to all experience with social revolutions. The best we can hope for is to halt this mad rush toward the Welfare State; we can never back-track. The time has come for us to catch up and adjust to the situation as it now exists.

Fellowship Address, American College of Surgeons, October 19, 1950

Along the lines of socialism, to quote Cecil Palmer as it pertains to England:

"Early this year, a nationalized furniture mover, whose name under private enterprise was a household word, quoted $91 for moving a canteen refrigerator only 90 miles. A private enterprise quoted $11.20, but was not allowed to do the job because the socialist government would not permit him to carry goods a greater distance than 25 miles."

We think that's pertinent, because our present tax structure is nearing socialistic-confiscation measures. Nicholas E. Petersen, a Vice President of the First National Bank of Boston, says:

"If all personal taxable income of $25,000 a year and over were confiscated by the Government, the amount would be sufficient to pay the current running expenses of the Federal Government for only about ten days."—*Selected.*



keep him active . . longer with plenty of citrus fruit

As at the other end of the age gamut, optimal nutrition can make a tremendous difference in the vigor and stamina of the oldster.[1,6,8-11] Many geriatricians stress the importance of vitamin C in the management of geriatric diets,[2,5,9] and recommend a fully adequate intake[5,9] of citrus fruits and juices (so often neglected by older people)—because of their high content of this essential vitamin and of other nutrients. Fortunately most everyone likes the taste of Florida citrus fruits and juices. They may be served in a variety of ways, and—under modern techniques of processing and storage, whether fresh, canned or frozen—they can *retain their ascorbic acid content,[3,7] and their pleasing flavor,[4] in very high degree and over long periods.*

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Citrus fruits—among the richest known sources of Vitamin C—also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.

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FLORIDA

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Cancer Comment

THIRD MICHIGAN CANCER CONFERENCE

Cancer does not necessarily run in families, Madge Thurlow Macklin, M.D., of Columbus, Ohio, reported in a paper at the Third Michigan Cancer Conference held at the Kellogg Center for Continuing Education on the campus of Michigan State College, East Lansing, October 12.

Dr. Macklin, Lecturer on Genetics, Medical Department, Ohio State University, was one of six speakers at the meeting which was sponsored by the Cancer Control Committee, Michigan State Medical Society and cosponsored by the Michigan and Southeastern Michigan Divisions, American Cancer Society and the Michigan Department of Health. More than 200 persons representing medical, dental, health, welfare, labor and civic groups from all over Michigan attended the Conference.

"A better understanding of what is involved in heredity as a major force in cancer development would calm the fears of many who now worry needlessly about the dangers of having cancer because some member of the family has had it," Dr. Macklin said.

She pointed out that environmental factors play an important part in cancer development, but for cancer to develop there must also be some hereditary background.

"When either the hereditary or environmental factor is weak, cancer is less likely to develop than when either or both are strongly present. Persons with a history of known cancer in the family should be more alert to symptoms suggestive of the disease and, by frequent medical examinations, be assured that an unknown cancer is not growing in their bodies," Dr. Macklin added.

Miss Hulda Edman, R.N., Cancer Nursing Specialist, Detroit Visiting Nurse Association, discussed nursing problems in home care of cancer patients. She emphasized that every cancer patient presents different nursing problems, depending on the sex, age, social and economic status of the patient.

"The nurse is a member of a working team consisting of the patient, his family, the physician, and public and private agencies that may be involved in his treatment and care," said Miss Edman.

In the home, personalized care, including adequate nutrition, understanding the patient's mental reactions and those of his family toward his illness can be more adequately understood and a better service rendered.

"The psychiatrist's contribution to the home care of cancer patients rests on his appreciation of the mental problems involved rather than on the physical care and treatment of the patient," Harrison Sadler, M.D., of the Department of Psychiatry, Wayne University Medical School, Detroit, said.

Dr. Sadler pointed out that the greater the emotional reaction of the patient and his family toward his illness, the more need for the psychiatrist to lessen the tension of these reactions and help all concerned to take a more tolerant and understanding attitude toward the situation.

"When lay cancer education in Michigan was first begun, in many rural areas the people often were unacquainted with the problem and resources for help in solving it," stated Mrs. Marjorie Karker, Director, Women's Activities, Michigan Farm Bureau.

Mrs. Karker stressed the fundamental facts that everyone should know about cancer and its control and reported that during the past few years all local committees of the women of the Farm Bureau had been alerted to the cancer problem and the part its members can and must take for their personal protection against the disease.

"Thanks to the widespread educational efforts, the farm women of Michigan are now better informed than ever before about the dangers of cancer and their part, in co-operation with other local agencies, in bringing about a better control of cancer in their local areas," said Mrs. Karker.

Commenting on cancer education in schools, F. L. Rector, M.D., Secretary, Cancer Control Committee, Michigan State Medical Society, said:

"Cancer education in schools is not only practicable but highly desirable."

High school students accept such teaching in an impersonal manner and often are able to influ-

(Continued on Page 1330)

Holiday Greetings

We take this opportunity
to wish you a very Merry
Christmas and a Happy,
Prosperous New Year . . .

. . . to thank you for
the patronage with which
you have favored us . . .

. . . and to assure you
of our continued
co-operation during
the year to come.

ALEX McKINNON
WALLACE "ANDY" ANDERSON
MICHAEL CAUGHLIN
FERDINAND CINELLI
ANTONIO "TONY" FERRARA
ERIC GOULLAUD
SAM GRAND
KENNETH JOHNSON
ANTHONY "TONY" KIRPLUK
MYRON RIPP
JULIUS SAWALL
GEORGE SULKY
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of The F. J. Hartz Company

CANCER COMMENT

(Continued from Page 1328)

ence their parents to seek medical attention for neglected minor illnesses that often prove to be cancer in early and curable stages.

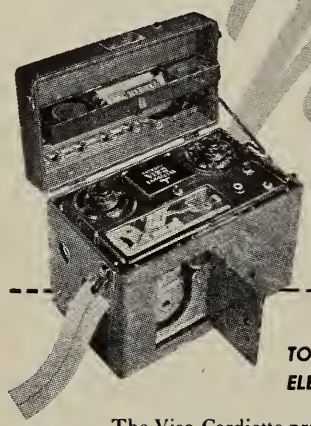
"If all high school graduates understood the part they must play in their own protection against this disease, in a few years the death rate from cancer would show a marked decline," Dr. Rector reported.

He stated that the Cancer Control Committee had in preparation a cancer teaching manual for high school use that would be offered to the schools of Michigan as a source book of information on that subject.

In welcoming the members of the Conference, A. E. Heustis, M.D., Commissioner of Health of Michigan, said:

"The potential value of a meeting of this kind in which the doctor of medicine, the public health worker and the lay worker with an intelligent and informed interest in cancer control are all working together toward a common goal, holds great promise for an effective attack on the disease. Through such co-operation and the application of present knowledge, the death rate from cancer can be lowered in a comparatively short time."

THE SANBORN Viso CARDIETTE



DIRECT WRITER

TODAY'S FOREMOST ELECTROCARDIOGRAPH

The Viso-Cardiette provides standard accurate records in true rectangular coordinates of all accepted leads. Records are permanent, produced by heated stylus on plastic coated paper. Operation is simplified; only two major controls for routine work. The Viso is famous for trouble-free performance. It was the first ecg accepted by the A. M. A. Council on Physical Medicine and Rehabilitation.

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In answer to a question from the audience, Dr. Heustis explained that cancer is legally a reportable disease in Michigan and read those portions of the public health and other laws relating to the subject. He also explained in detail the steps through which the matter passed in order to be made official.

The interest displayed in this Conference, as in the two preceding ones, has determined the Cancer Control Committee to continue these educational programs. The Fourth Michigan Cancer Conference in 1952 already is being planned.

When hoarseness persists for more than two weeks, the larynx should be examined with a throat mirror.

* * *

Earache on the same side as the lesion may accompany advanced cancer of the intrinsic larynx.

* * *

Pain on swallowing is the most common primary symptom of cancer of the extrinsic larynx.

* * *

For the general practitioner, laryngeal cancer is a problem of diagnosis and of help in getting proper therapy.

* * *

In no other internal organ does cancer present definitive symptoms as early as in the larynx.

* * *

The cure rate for laryngeal cancer is nearly 90 per cent when the disease is confined to the vocal cord.

CLOSER TIES BETWEEN VARIOUS PROFESSIONS

(Continued from Page 1322)

in the people during the past two generations. It is especially apparent in the young people of Germany today, who seem to reflect an attitude of outright suspicion about all foreign influence, no matter what it may be."

The same situation, to some extent, applies to France, Dr. Smith added.

Again the AMA editor emphasized the value of professional inter-relationship as a safeguard against the kind of ideology which destroys individual thought, freedom and action, and urged that greater effort be made among professional groups to meet and discuss their related problems. He suggested that each of the three groups represented—doctors, dentists and pharmacists—appoint steering committees to draft recommendations for future consideration, thus encouraging further inter-relationship. — *The Iron Mountain News,* November 2, 1951.

Say you saw it in the Journal of the Michigan State Medical Society

"In general, symptomatic improvement [of menopausal symptoms] was striking within 7 to 14 days after treatment..." with "Premarin."

Gray, L.: J. Clin. Endocrinol. 3:92 (Feb.) 1943.

Many clinicians have found that "Premarin" therapy usually brings about prompt relief of distressing menopausal symptoms. Furthermore, symptomatic improvement is followed by a gratifying sense of well-being in a majority of cases. This is the "plus" in "Premarin" therapy which tends to quickly restore the patient's normal mental outlook.

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg., and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

"Premarin" contains estrone sulfate plus the sulfates of equilin, equilenin, β-estradiol, and β-dihydroequilenin. Other α- and β-estrogenic "diols" are also present in varying amounts as water-soluble conjugates.

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Annual Session Echoes

GRAND RAPIDS ATTENDANCE RECORD BROKEN

A new high for Grand Rapids was established at the 1951 MSMS Annual Session, September 26-27-28. A total of 2901 persons was marked up at the 86th Annual Session of the Michigan State Medical Society!

The breakdown of this high registration is as follows:

Doctors of Medicine	1,480
Guests	397
Exhibitors	503
Woman's Auxiliary members	284
Medical Assistants members	237
GRAND TOTAL	2,901

MSMS "FIFTY YEAR CLUB" NOW TOTALS 169

The "Fifty Year Club" of the Michigan State Medical Society gained thirty-two members in 1951 to swell its total enrollment to 169. Founded five years ago for the purpose of paying tribute to those doctors of medicine who have practiced medicine for a half century or longer, the induction into office has become a standard feature of the Officers' Night ceremonies at MSMS Annual Sessions.

Inducted this year were: William F. Acker, M.D., Monroe; D. H. Burley, M.D., Almont; Wm. H. Brock, M.D., Saginaw; J. W. Barnebee, M.D., Kalamazoo; G. A. Conrad, M.D., Sault Ste. Marie; G. C. Conkle, M.D., Boyne City; Julius C. Clippert, M.D., Grosse Ile; J. E. Curlett, M.D., Roseville; J. W. Gethings, M.D., Battle Creek; C. S. Gorsline, M.D., Battle Creek; Augustus Holm, M.D., LeRoy; James Houston, M.D., Swartz Creek; G. B. Hoops, M.D., Detroit; Wm. T. King, M.D., Ahmeek; Simon Levine, M.D., Houghton; Horace H. Loveland, M.D., Tecumseh; George W. Logan, M.D., Flushing; Frank E. Luton, M.D., St. Johns; G. W. Moore, M.D., Bay City; A. E. MacGregor, M.D., Battle Creek; Esli T. Morden, M.D., Adrian; A. Noordewier, M.D., Grand Rapids; F. W. Ostrander, M.D., Freeland; W. T. Parker, M.D., Owosso; B. Morgan Parker, M.D., Utica; J. W. Rigterink, M.D., Grand Rapids; E. D. Sage, M.D., Kalamazoo; L. N. Upjohn, M.D., Kalamazoo; H. R. Wilson, M.D., Saginaw; W. H. Winchester, M.D., Flint; Herbert H. Wiley, M.D., Algonac; J. C. Grosjean, M.D., Bay City.

THANKS TO CONVENTION WORKERS

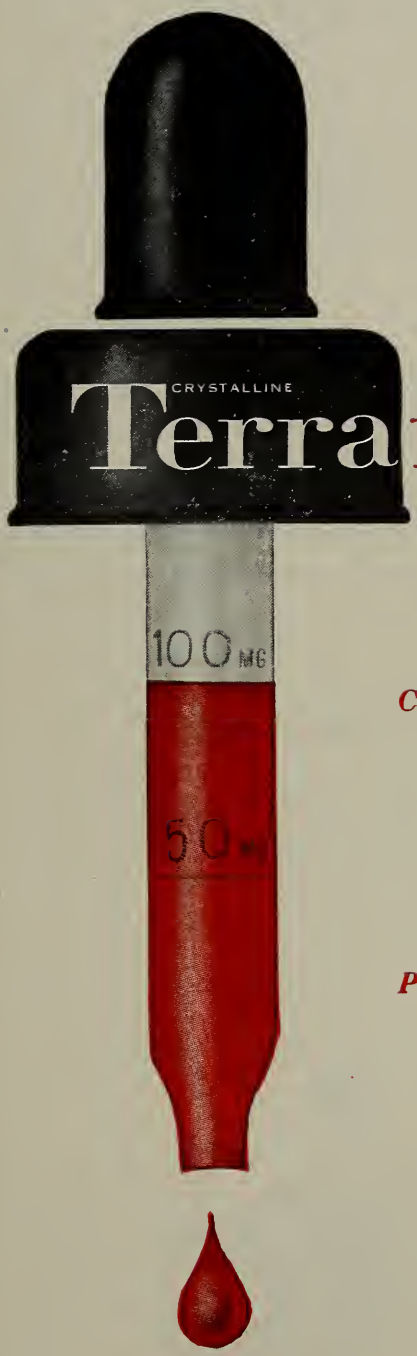
The Council of the Michigan State Medical Society, at its September 28, 1951 meeting in Grand Rapids, placed on its minutes a vote of thanks to all who helped to make the 86th Annual Session in Grand Rapids such an outstanding success. Deserving special commendation are: J. Duane Miller, M.D., Grand Rapids, General Chairman of Arrangements; W. B. Mitchell, M.D., and H. J. Van Belois, M.D., Grand Rapids, Co-Chairmen of Committee on Scientific Exhibit; C. A. Payne, M.D., Chairman, F. C. Brace, M.D., H. G. Benjamin, M.D., and P. W. Kniskern, M.D., all of Grand Rapids, Scientific Press Relations Committee; J. E. Livesay, M.D., Flint, Chairman, R. H. Baker, M.D., Pontiac, H. F. Dibble, M.D., Detroit, William Bromme, M.D., Detroit, and L. Fernald Foster, M.D., Bay City, House of Delegates Press Relations Committee.

Ubiquitous Hosts: G. T. Aitken, M.D., G. D. Albers, M.D., F. S. Alfenito, M.D., J. H. Beaton, M.D., C. B. Beeman, M.D., C. M. Bell, M.D., Donald Boersma, M.D., J. R. Brink, M.D., L. C. Carpenter, M.D., I. G. DePree, M.D., Leon DeVel, M.D., E. F. Ducey, M.D., M. E. Ellis, M.D., G. T. R. Fahlund, M.D., W. J. Fuller, M.D., A. M. Hill, M.D., W. A. Hyland, M.D., W T. Kruse, M.D., R. G. Laird, M.D., A. E. Lamberts, M.D., R. H. Meade, Jr., M.D., J. C. Montgomery, M.D., V. A. Notier, M.D., L. P. Ralph, M.D., J. A. Ryan, M.D., D. M. Schuitema, M.D., F. D. Thompson, M.D., P. W. Willits, M.D., all of Grand Rapids.

Chairmen and Secretaries of Assemblies: William Bromme, M.D., Detroit, J. R. Delaney, M.D., Detroit, R. J. Hubbell, M.D., Kalamazoo, F. P. Husted, M.D., Bay City, W. S. Jones, M.D., Menominee, G. B. Saltonstall, M.D., Charlevoix, G. W. Slagle, M.D., Battle Creek, E. M. Smith, M.D., Grand Rapids, W. A. Stryker, M.D., Wyandotte, D. I. Sugar, M.D., Detroit, J. E. Webster, M.D., Detroit, and D. B. Wiley, M.D., Utica.

(Continued on Page 1334)

THE ONLY ONE IN ORAL DROPS



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Crystalline Terramycin Hydrochloride Oral Drops provide 50 mg. in each 9 drops—or 200 mg. per cc.—a concentration affording optimal simplicity and convenience in dosage.

Can be taken "as is" or mixed with foods and fluids

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Pure crystalline antibiotic—well tolerated

Terramycin Oral Drops are prepared from pure crystalline material. As with other dosage forms of this effective broad-spectrum antibiotic, Terramycin Oral Drops are well tolerated.

Supplied: 2.0 Gm. with 10 cc. of diluent, and specially calibrated dropper.

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Say you saw it in the Journal of the Michigan State Medical Society

THANKS TO CONVENTION WORKERS

(Continued from Page 1332)

Discussion Conference Leaders: H. B. Barker, M.D., Pontiac, C. B. Beeman, M.D., Grand Rapids, W. C. C. Cole, M.D., Detroit, J. E. Croushore, M.D., Detroit, A. C. Curtis, M.D., Ann Arbor, J. F. Failing, M.D., Grand Rapids, F. B. Fralick, M.D., Ann Arbor, R. L. Haas, M.D., Ann Arbor, L. T. Henderson, M.D., Detroit, L. J. Hirschman, M.D., Traverse City, E. A. Kahn, M.D., Ann Arbor, George Kamperman, M.D., Detroit, E. E. Martmer, M.D., Detroit, F. R. Menagh, M.D., Detroit, J. G. Molner, M.D., Detroit, G. B. Myers, M.D., Detroit, G. C. Penberthy, M.D., Detroit, H. R. Roehm, M.D., Birmingham, E. D. Spalding, M.D., Detroit, F. D. Thompson, M.D., Grand Rapids, and R. W. Waggoner, M.D., Ann Arbor.

House of Friendship Committee: R. H. Baker, M.D., Pontiac, W. D. Barrett, M.D., Detroit, Otto O. Beck, M.D., Birmingham, R. S. Breakey, M.D., Lansing, William Bromme, M.D., Detroit, A. S. Brunk, M.D., Detroit, J. S. DeTar, M.D., Milan, F. H. Drummond, M.D., Kawkawlin, L. Fernald Foster, M.D., Bay City, W. B. Harm, M.D., Detroit, L. C. Harvie, M.D., Saginaw, Wilfrid Haughey, M.D., Battle Creek, R. J. Hubbell, M.D., Kalamazoo, L. W. Hull, M.D., Detroit, W. S. Jones, M.D., Menominee, J. E. Livesay, M.D., Flint, A. H. Miller, M.D., Gladstone, J. D. Miller, M.D., Grand Rapids, C. A. Paukstis, M.D., Ludington, R. C. Pochert, M.D., Owosso, G. B. Saltonstall, M.D., Charlevoix, G. W. Slagle, M.D., Battle Creek, C. E. Umphrey, M.D., Detroit, D. B. Wiley, M.D., Utica, and H. B. Zemmer, M.D., Lapeer.

Richard A. Aubrey, Detroit, loaned by the E. I. du Pont de Nemours & Co., Inc., for the entire period of the Annual Session, rendered untiring service both day and night.

The MSMS public relations activities gained many aides during the convention including those who arranged for TV, radio and service club appearances:

Paul Ralph, M.D., E. W. Schnoor, M.D., Richard Sidell, M.D., William R. Vis, M.D., all of Grand Rapids.

Eugene Wiard and Margalee Magoon, both of Lansing, Michigan Health Council; Arthur Hagman, Detroit, *Inside Michigan;* Robert K. Mason and Betty Williamson, both of Grand Rapids, Wallace-Lindeman Agency.

Gene Peterson, Radio Station WLAV, Hal Hoffman, WLAV-TV, Robert Runyon, Mrs. Kay Runyon, Glen LePard, and Mrs. Rosemary Grinage, all of Grand Rapids with Radio Station WOOD.

Burdett Ashley, Associated Press, George Zarry, United Press, and W. F. Young, United Press, both of Grand Rapids, Hugh Lago, *Grand Rapids Herald,* Dwight Jarrell, *Grand Rapids Herald,* B. G. Brown, *Grand Rapids Press,* Joan Dunakin, *Grand Rapids Press,* Allen Shoenfield, *Detroit News,* Jack Pickering, *Detroit Times,* Dale Nouse, *Detroit Free Press.*

Thanks for the generous supplies of notebooks distributed to registrants at the 1951 Annual Session are due the Bruce Publishing Company of Saint Paul and the Michigan Medical Service, Detroit.

The Upjohn Company of Kalamazoo were hosts to the Woman's Auxiliary to the Michigan State Medical Society on the occasion of its recent convention. Approximately 100 wives of MSMS members were transported from Grand Rapids to Kalamazoo for an inspection of the Upjohn plant, including the laboratories, and for a social hour followed by dinner with officers of the Upjohn Company.

WHAT THEY THOUGHT OF THE 1951 MSMS ANNUAL SESSION

N. S. Assali, M.D., Cincinnati, Ohio (Guest Essayist): "Mrs. Assali and I would like to present to the Michigan State Medical Society our sincere thanks for the kindness and the overwhelming hospitality which was shown us while we were in Grand Rapids during the meeting of the Society. Needless to say it was such an interesting audience. The three days we spent in Grand Rapids will remain in our memories for a long time. Thank you again for all your kindness."

* * *

S. William Becker, M.D., Chicago, Illinois, (Guest Essayist): "As usual, I greatly enjoyed the honor of being a guest speaker at your meeting and renewing acquaintances with some of my Michigan friends."

* * *

A. I. Dodson, M.D., Richmond, Virginia (Guest Essayist): "I greatly appreciate the kindness shown me while visiting your meeting."

(Continued on Page 1336)

NORM

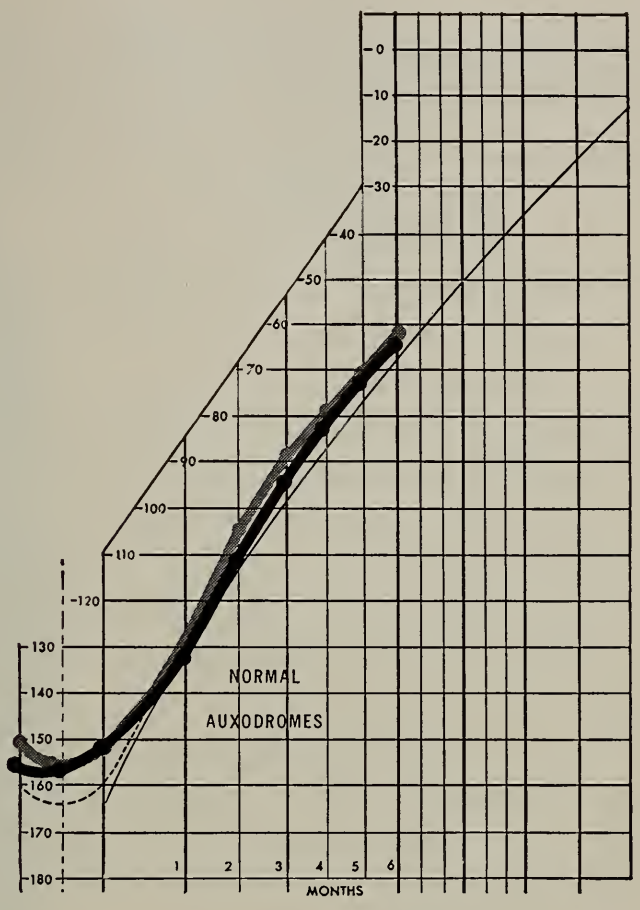
Normal schedule of development (auxodrome) plotted on Wetzel Grid.[1]

CURVE A

Composite Wetzel Grid auxodrome of 60 unselected infants on S-M-A from birth to 6 months of age.

CURVE B

Growth data, recomputed on Wetzel Grid, based on "selected subjects, most of whom were favored by environment;"[2] age: from birth to 6 months.



1. Wetzel, N. C.: J. Pediat. *29*:439, 1946.
2. Jackson, R. L., and Kelly, H. G.: J. Pediat. *27*:215, 1945.

Comparative development rates prove...

S-M-A®

builds husky babies

Recent clinical studies of development rates of *unselected* S-M-A-fed babies (curve A on chart) prove its value. The growth results compare favorably with "standards which are considered to approach the optimum for general pediatric practice."[2] (curve B on chart).

Because it is patterned after human milk **S-M-A®** with Vitamin C added *is recognized as an outstanding food for babies.*



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WHAT THEY THOUGHT OF THE SESSION

(Continued from Page 1334)

Charles R. Doyle, M.D., St. Louis, Missouri (Guest Essayist): "I really enjoyed the meeting in Grand Rapids and I appreciate the opportunity very much. It was good to renew old acquaintances and of course the opportunity to visit with my family. Best wishes and thanks again."

* * *

A. J. Horesh, M.D., Cleveland, Ohio (Guest Essayist): "Many thanks for the wonderful time I had in Michigan and your generous hospitality."

* * *

Daniel B. Kirby, M.D., New York, N. Y. (Guest Essayist): "Thank you very kindly for the privilege of addressing the Michigan State Medical Society. I appreciate your hospitality very much. It was good to know you and to renew my friendship with my Michigan friends, and particularly with Bill Burns. Please give my kindest regards to all. I will look forward with pleasure to seeing you again."

* * *

Prof. Clarence Manion, South Bend, Indiana (1951 Biddle Lecturer): "Yours is an unmatched hospitality which I shall never forget. It was a great plesure to meet your group, Dr. Cline and all of your stimulating guests."

* * *

Alexander Marble, M.D., Boston, Mass. (Guest Essayist): "I enjoyed being at the meeting very much indeed. I was certainly well taken care of and your organization deserves compliments on the efficient way in which the meetings are run. I happen to be a member of the Committee on Arrangements of the Massachusetts Medical Society and hope to use some of the ideas that I gained in attendance at your meeting."

* * *

Waldo E. Nelson, M.D., Philadelphia, Pa. (Guest Essayist): "I enjoyed my visit to Grand Rapids and am particularly appreciative of the many things that were done for me, especially by Dr. Morgan Hill and the other pediatricians in Grand Rapids."

* * *

Willis J. Potts, M.D., Chicago, Illinois (Guest Essayist): "It was a pleasure to meet with the Michigan State Medical Society. I very much appreciated the kindess of people in general and the great hospitality of Dr. Richard Meade, my host."

* * *

Ralph A. Reis, M.D., Chicago, Illinois (Guest Essayist): "Just to tell you how much I enjoyed participating in your recent meeting in Grand Rapids and visiting with so many of my old friends."

* * *

Stephen Rothman, M.D., Chicago, Illinois (Guest Essayist): "I wish to express my heartiest thanks for the wonderful hospitality extended to me during my stay in Grand Rapids. Dr. Kruse indeed did everything possible to make my stay most pleasant. I also wish to thank your Society for everything."

* * *

Elmer L. Sevringhaus, M.D., Nutley, New Jersey (Guest Essayist): "It was a pleasure to have the opportunity of meeting you and my many friends in Grand Rapids. The hospitality on the Grand Rapids end was wonderful."

* * *

Franklin H. Top, M.D., Minneapolis, Minnesota (Guest Essayist): "Thank you for the privilege of speaking at the 1951 session of the Michigan State Medical Society. I enjoyed the assignment and met many of my old friends."

* * *

Henry L. Williams, M.D., Rochester, Minnesota (Guest Essayist): "I enjoyed participating in your program and if the Council feels I contributed satisfactorily, I am gratified."

* * *

A. M. Campbell, M.D., Grand Rapids (MSMS Member): "You have again done a wonderful job in furnishing a fine program for the State Society meeting. I hope you will live for many years to continue your splendid services in Michigan."

* * *

L. J. Hirschman, M.D., Traverse City (Past President, MSMS): "Re the recent meeting at Grand Rapids, I was pleased at the active participation of the members present at our Discussion Conference and at the type of questions presented. Dr. Mackie was most gracious in his replies, and expressed himself to me as highly gratified at the reception of his presentations."

(Continued on Page 1338)

FUNCTIONAL NERVOUS DISORDERS



IN *Visceroptotic Patients*

Pressure variations induced by movements of the diaphragm are in part responsible for the venous return to the heart. Highly sensitive nervous connections are influenced by its positions. "Globus Hystericus" is seldom manifest in functional visceroptotic patients when reclining. Sudden dropping of the viscera such as occurs upon arising in the morning initiates symptoms. Tension on the diaphragm irritates sympathetic connections, thereby lowering vasmotor tone. "The globus is almost invariably relieved by abdominal support and systematic breathing exercises to release diaphragmatic tension."*

**Gosselin, George A., M.D. Neurology and Physiology in Functional States Connecticut State Medical Journal 15: 109-113, (February) 1951*

CAMP

Visceroptosis Supports, scientifically designed, universally distributed. Prescribed by physicians and praised by the patients who wear them.

S. H. CAMP and COMPANY, JACKSON, MICHIGAN

World's Largest Manufacturers of Scientific Supports

Offices in New York • Chicago • Windsor, Ontario • London, England

(Continued from Page 1336)

R. J. Mason, M.D., Birmingham (Chairman of the MSMS Child Welfare Committee): "Congratulations to you and your staff for the preparation and conduction of another very fine medical convention. I am sure none of us who attended the three day session fully appreciate all the time and effort that you spend in getting this program for us, but at any rate you can have the satisfaction of accomplishing a worthwhile project in a most satisfactory style."

* * *

A. M. Schwittay, M.D., Madison, Wisconsin, (Guest): "The program is quite the best I have ever seen at an annual meeting. That is why I went to Grand Rapids. Thank you very much for taking care of me at your annual meeting. It was kind of you to get me a room at the Pantlind. I enjoyed the exhibitors' dinner no end. Never have I seen quite such hospitality."

* * *

Michigan Tuberculosis Association, Lansing (Scientific Exhibitor): "The Michigan Tuberculosis Association appreciates very much the recent opportunity afforded to them to exhibit at your Eighty-Sixth Annual Session. The interest expressed by the doctors in the tuberculosis problem, as evidenced by their attendance at our exhibit, was most gratifying. May we also commend your Society on the excellence of your 1951 session and exhibition."

* * *

Joseph W. Mann, Detroit (Veterans of Foreign Wars, Guest): "I really enjoyed myself at the Michigan State Medical Society session in Grand Rapids, Michigan. I sincerely appreciate the courtesy and consideration shown me in Grand Rapids and I am certain that our efforts will be of mutual value.

* * *

Russell F. Staudacher, Chicago (Executive Secretary, Student American Medical Association): "I wish to express my real thanks for the swell time I had at the Michigan State meeting. It was fine meeting my old friends and to learn of the State Society's activities in connection with both the Student American Medical Association and the American Medical Education Foundation."

* * *

Olive V. Seibert, St. Paul, Minnesota (Bruce Publishing Company): "Thank you for the many courtesies shown me while attending the 86th Annual Session in Grand Rapids. I shall always feel that I am a member of the Michigan family, for you good folks have done everything to engender that feeling."

* * *

H. L. Heller (A. S. Aloe Company, St. Louis, Missouri): "From comments of Tom Boufford and Dick Bibbero who made the meeting, this year's Michigan State Medical Society's Convention seems to have been the best ever. I know that this tremendous response is a tribute to the planning and work that you did together with your staff in setting up the meeting. I, therefore, felt called upon to drop you this note of appreciation for the splendid job you do. We really appreciate it and look forward to these meetings."

* * *

Mrs. Hermien Nusbaum (Baby Development Clinic, Chicago, Illinois): "We are planning to be with you in 1952. We feel our experience in Grand Rapids was very worthwhile.

* * *

Jean O'Brien (Beech-Nut Packing Company, New York): "Since this was the first year that Beech-Nut has been able to attend the Michigan State Medical Society meeting, we wish to express our thanks to you for your fine help. So far as we have seen, this was one of the best medical meetings we have attended. We sincerely hope we shall be able to join you again in future meetings."

* * *

J. G. Crume (Brown & Williamson Tobacco Corporation, Louisville, Kentucky): "We wish to express appreciation for the many courtesies we received from you and your staff during your recent meeting—the first one in which we participated. This certainly was a most successful show from our point of view and we want to add our congratulations to the many others we know you already have received."

* * *

M. M. Ricketts (C.S.C. Pharmaceuticals, New York): "It was a great pleasure to me to be able to pass another milestone with the MSMS."

* * *

James T. Beers (Coca-Cola Company, Atlanta, Georgia): "Our sincere congratulations to you for another wonderful Michigan State Medical con-

(Continued on Page 1340)



Pelton
Futuristic
Sterilizer

WITH THE
Exclusive
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A Lasting
Investment
in Modern
Asepsis

Today's most modern cabinet sterilizer is designed to serve you efficiently for years to come. Its long-life 16″ instrument sterilizer is available with either timer or automatic control. The Storador features four covered plastic trays. Cabinet in any standard color at no extra cost. See it at your dealer's or write for literature.

PELTON

THE PELTON & CRANE CO., DETROIT 2, MICHIGAN

(Continued from Page 1338)

vention. It was nice seeing you again and I wish for you the best of everything.

* * *

Dr. J. W. Waldman (Doak Co., Inc., Cleveland, Ohio): "I want to compliment you on the way you conduct the Michigan State Medical meeting."

* * *

Wm. F. Funkhouser (C. B. Kendall Company, Indianapolis, Indiana): "The 1951 Michigan Medical meeting was outstanding for us in physician registration and interest. We express our thanks and appreciation to the doctors of Michigan and all others responsible for conducting this successful convention. We hope to be back again in 1952. I wish to personally thank you and your staff for the many favors and kind attention shown us during this meeting."

* * *

Marion Phillips (Marion Phillips Maternity Preparations, Rochester, New York): "I do think to have had a registration of 350 at the MSMS meeting was pretty good for us—new in the exhibition field."

* * *

R. V. Oosting (Medical Arts Surgical Supply Company, Grand Rapids, Michigan): "I wish to express my sincere thanks for a very successful meeting last week, made possible by your perfect management."

* * *

Henry C. Black (Professional Management, Battle Creek, Michigan): "These many conventions which now do many things as routine, which you pioneered in years past, must give you a bit of satisfaction. You are tops in our book in many ways."

* * *

George C. Straayer (Schering Corporation, Bloomfield, New Jersey): "I enjoyed very much attending the Michigan State convention and it was grand to have the opportunity for renewing acquaintances with you and many other friends in the State of Michigan."

"Michigan medicine is healthy. That's a fact of vital importance to you. Translated in simple terms it means that you have the chance for a longer, healthier life." —From "Return of the Family Doctor," *Inside Michigan*, October, 1951, Number.

MSMS FILMS AVAILABLE TO COMMUNITY GROUPS

Two Michigan State Medical Society motion pictures, "Lucky Junior" and "To Your Health," are now available to service clubs and community groups after a successful circuit of theaters and television stations where they were seen by 5,294,037 persons in the nation.

"To Your Health," a film designed to combat the wild schemes of socialized medicine, has been shown in 261 Michigan theaters. Another 295 theaters have screened "Lucky Junior," a film on immunization. By actual count of paid admissions in these theaters, both pictures have been seen by Michigan audiences totaling 694,078 persons.

Release to the television stations in Michigan has made it possible for a greater audience to see the film; this group is conservatively estimated at 1,650,000.

Five states have purchased the rights to show "To Your Health" in the theaters of their states. In Florida, North Carolina, Oklahoma, South Carolina and Rhode Island, approximately 1,350,000 persons have seen this picture.

In addition, New York and Maryland have shown the picture to private groups and on television to an estimated audience of 1,500,000 persons.

When "Lucky Junior" and "To Your Health" play before community audiences it is expected that an additional 50,000 persons in Michigan will see these films. This figure may then be added to the 5,294,037 individuals who have already watched the films in either their hometown theaters or on the screens of their television sets. The listing of the films in national catalogues will increase their distribution still further.

The total income from the sale of the rights to the pictures has been $1,972.50. The total cost for production and distribution of "To Your Health" is one and one-third cents per person per Michigan viewer. This is probably the most economical media used for a 13-minute message designed for mass dissemination of educational information on a controversial issue.

"To Save Your Life" is Low-Budget Picture

The latest Michigan State Medical Society film, "To Save Your Life," was made on an even lower budget. This film is a 16 mm. sound, color motion picture tracing the development of a doctor of medicine from high school through the years of his practice. The 30-minute film will be valuable to every high school, college, PTA and service club in the United States.

Because of the wholehearted co-operation of the doctors of medicine, the medical teaching institutions and others who participated in the film, it is expected that the cost per person viewing this motion picture in Michigan will be less than one-third of one cent per person.

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Editorial Comment

WHAT PRICE STRESS?

Even on a quiet day, between routine work and driving a car, everyone makes as many contacts with other people as our grandparents made in a month. The drag on the nervous system, the daily striving for equanimity demands a manifold myriad of conscious and reflex reactions. Walking a block on a busy street requires as many directional decisions as would carry one a fortnight a generation ago. This applies to everybody, every worker. And the correlated mishaps, and crack-ups, and accidents, and mental and physicial blow-ups are in geometrical multiplicity as compared to the era nostalgically called the gay 90's. All this is the workday frame of reference in which each must carry on his work.

A professional friend had a heart attack at the height of his productive years, and at an age which should have been the mid-period rather than what is, all too sadly obvious, the end of an active career.

Whether because of greater familiarity or of significant statistical importance, it remains that too many of our best men are cut down in mid-career at the height of their value to family and society by cardio-vascular accidents—heart disease and apoplexy. It might be better if more people recognized their fatigue threshold rather than try to raise the coefficient of achievement.

Though frustration, disharmony, inhibited emotion, and fear—fear mostly of oneself—are commonplace, frequent common denominators of cardiovascular disease that cross all the recognized demonstrable organic causes, another major cause is working over and past the normal fatigue point. What has to be recognized is that it is the unusual individual who can do the unusual amount of work. And recall that those giants of medicine who lived and worked into the seventh and eighth decades had no room in a happy life for malice.

A doctor friend, honorable and conscientious over and above any reasonable standards, with a surgical training built his surgical practice out of his own general practice. During the late hectic years he carried on both a huge general practice and his surgical practice. An idealist, his home life was idyllic. But without premonitory symptoms he died suddenly from a coronary occlusion on a very hot midsummer day at the time he was busiest.

There is value in learning to rest, to play, relax; to sit home and watch the kids in the evening. For most of us mortals it is not intended that every waking moment should be a working moment. To each it is important for the long term pull that the coefficient of effort be graphed not too long, too far beyond the zone of fatigue. The economic law of diminishing returns concerns the biological limit of human endeavor. Harmony, emotional calm, and the ability to look the guy in the eye who leers back from the mirror when one shaves smooths out the peaks of high blood pressure.

It takes years to evaluate things and people, to learn what is momentous. Maturity brings knowledge that most things that pour out adrenalin are really unimportant.

And it is very urgent when one is younger to strive to play it square, so that when years pile up it becomes reflex to do the right thing automatically without having to ponder.

No reward is worth hurting the other fellow.

—Dave Sugar in *Detroit Medical News,* October 29, 1951.

MEDICAL INCOMES

Are all doctors rich, prospering on big fees and little work?

The Office of Business Economics of the Department of Commerce says "no." This independent, neutral agency, working in conjunction with the American Medical association's Bureau of Medical Economic Research, has just completed a survey of 55,000 medical incomes, according to The Journal of the Michigan State Medical Society. It was found that the average net income, before taxes, of the physician is $11,058 annually. Naturally, some physicians make a great deal more than others, but that is the average and it is interesting to note that while the national income of the American people was up 224 per cent in 1949 over the 1935-39 period, the incomes of the physicians increased 150 to 170 per cent. This represents gross income, not "take home pay."

Considering the long and expensive training necessary to the young man entering the medical profession, the years required to establish a practice and the great responsibilities involved, it cannot be argued that the average income for the profession as a whole is high.—*Benton Harbor News-Palladium,* October 8, 1951.

TOO BUSY TO CELEBRATE

A physician bends over a man apparently dead of a heart attack and administers a quick hypodermic of adrenalin. A life has been saved by the heart stimulant.

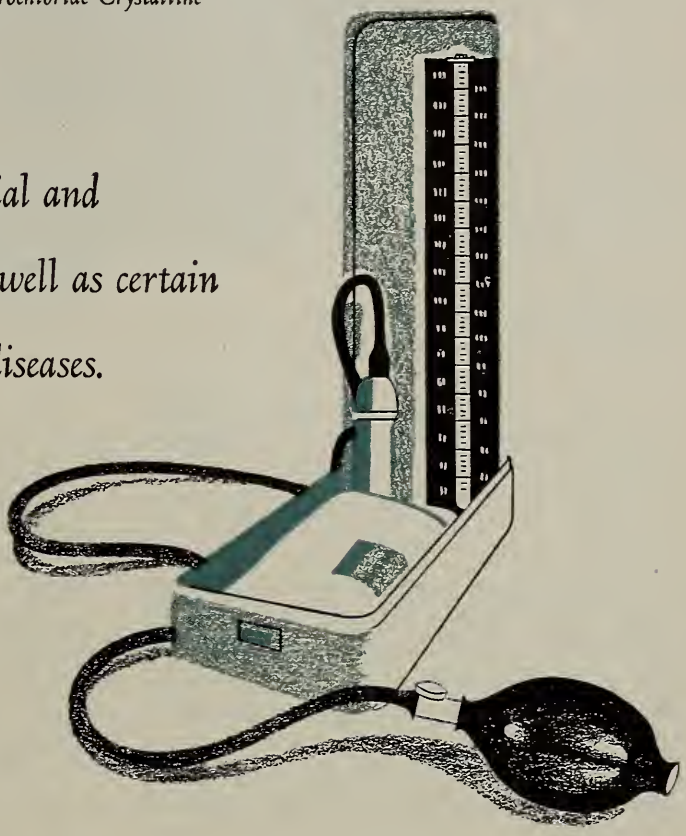
A half-world away, another physician is administering chloromycetin to a desperately sick child. Another life is saved by this drug, found effective in treatment of more than thirty diseases.

(Continued on Page 1344)

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The Geriatrist looks always for a treatment which shall act effectively to curb infection, without unduly upsetting normal metabolic processes and immunologic responses. Aureomycin provides a maximum anti-infectious effect with a minimum of disturbance. Infection in the elderly is more apt to be subacute, or chronic, than acute; and of mixed rather than pure type. Under such conditions, the oral effectiveness and broad activity of aureomycin make it of exceptional value.

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Say you saw it in the Journal of the Michigan State Medical Society

TOO BUSY TO CELEBRATE

(Continued from Page 1342)

Throughout the free world, physicians in their offices are writing prescriptions for those who are ill. Ninety per cent of the prescriptions couldn't have been written fifteen years ago. The drugs didn't exist.

Behind adrenalin, chloromycetin and a host of other important drugs is Detroit's Parke, Davis & Co. which is 85 years old today.

On October 26, 1866, soon after the end of the Civil War, Dr. Samuel P. Duffield, a druggist at Gratiot and Woodward, and Hervey C. Parke founded the firm. In 1867, George S. Davis became a member.

With the development of adrenalin in 1901, the firm stepped into the front rank of drug research.

Outstanding developments of succeeding years —just to name a few—have been dilantin for epilepsy, promin and promizole for leprosy, benadryl for allergies, camoquin for malaria, kutrol for ulcers, surital, an anesthetic, and chloromycetin, the great killer of germs, introduced just two years ago.

There is no formal celebration today for the 9,000 employes of Parke, Davis & Co. They are busy, said Harry J. Loynd, the president, for:

"Right now important progress is being made on drugs that will become news a few months or a few years hence."

For Parke, Davis & Co. there have been eighty-five good years—years which have benefited millions of people.

Millions more will benefit in the next eighty-five years.—*Detroit Times,* October 26, 1951.

WE CAN HELP OURSELVES

Consider these recent developments:

The Greater Detroit Hospital Fund reports that the 200-bed St. John Hospital is near completion, two other new hospitals are half finished and six additions to existing hospitals are under way under its $19,700,000 hospital improvement program.

The University of Michigan has the largest freshman medical class in the United States, a record 204 students.

A building permit has been issued for construction on Wayne University's new $3,237,000 medical college building.

The Michigan Medical Service, sponsored by Michigan doctors, now has reached a total of 2,300,118 enrolled, and thousands of other families are protected by other hospital insurance groups.

These are just a few of the outstanding developments which show that we are going constantly forward in our protection of lives and health despite discouraging setbacks.

They show something else, too—the health of our Republic.

They show that a determined people, with ingenuity and faith in themselves, continue able to meet their own problems out of their own resources.

These developments—and many more could be listed—give the lie to those who claim that our way of life, as we now live it, fails to protect the health of our people.—*Detroit Times,* October 27, 1951.

Census figures of men over sixty-five in 1948 who were not in charitable institutions show that 11 per cent were penniless; 45 per cent had annual incomes under $1,000; 40 per cent had incomes between $1,000 and $5,000; and only 4 per cent had incomes over $5,000.—*Selected.*

* * *

How is socialized medicine coming along in Great Britain? Cecil Palmer, an English publisher, author and journalist, has this report: "There are tragically long waiting lists for admission to hospitals. The number is officially admitted to be more than 500,000. There are also at least 10,000 serious tuberculosis victims awaiting admission to sanitoria. At the same time, there are thousands of empty beds because the available professional personnel cannot cope with the demand for its skilled services . . . The blunt truth is that nationalized medicine is facing a financial crisis. Overburdened British taxpayers now realize that they are paying far too much for far too little."—*Selected.*

* * *

A Commonly Held False Belief:

That since World War I the population of the United States has increased much faster than has the number of physicians.

The Actual Facts:

In 1920 we had 144,977 physicians for a population of 105,710,620 persons.

In 1950 we have 201,277 physicians in the United States for an estimated 153,000,000 persons.

The gain in population for the thirty years is about 45 per cent; the gain in number of physicians for the thirty years is about 39 per cent.

In 1920 we had one physician for every 729 persons; in 1950 we have one better trained physician to every 760 persons.

Crucial to an understanding of this problem is the fact that the physician of today—

(1) is much better trained than the physician of 1920,

(2) has a great deal more assistance from nurses, technicians and other auxiliary personnel and equipment,

(3) sees more of his patients in hospitals and is required to spend a much smaller part of his time in travel, and

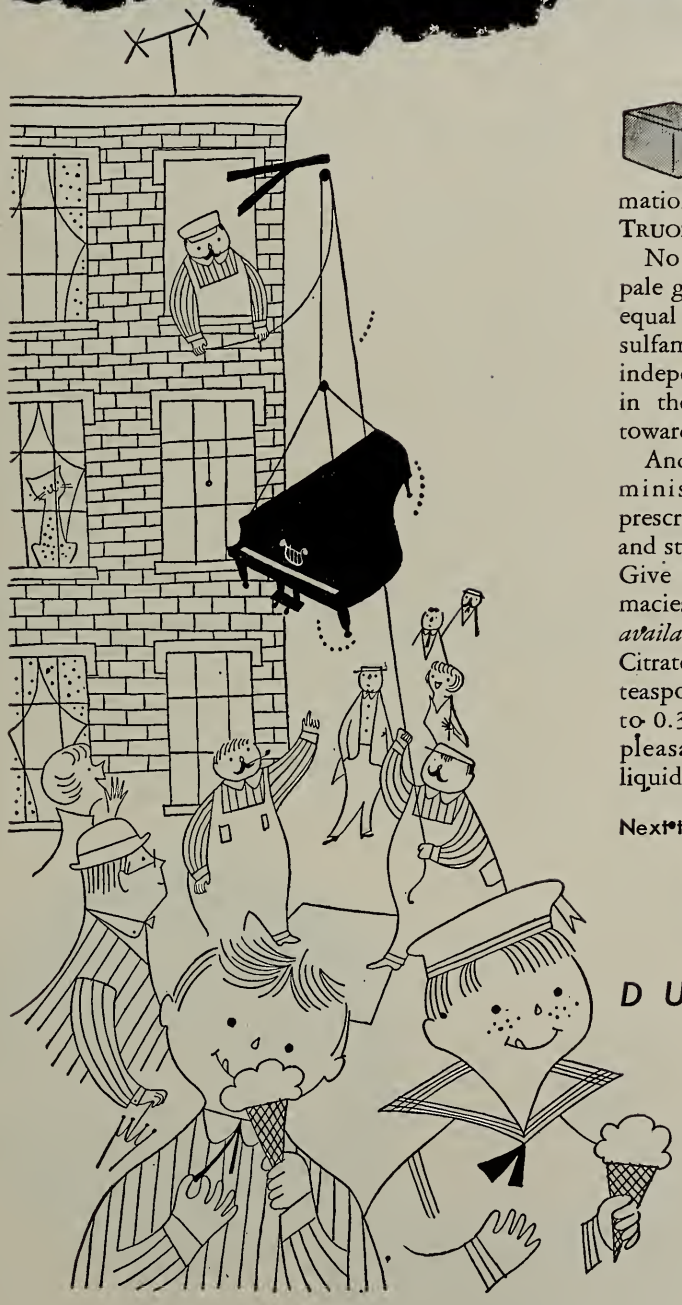
The physician's availability must be measured by time rather than distance.

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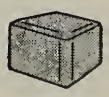
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Political Medicine

NEW SENATE LEGISLATION

We commented some months ago that sentiment was building up to a new EMIC. If any doctor believes piecemeal socialization is not impending, read these new Senate Bills.—EDITOR.

S. 2337. EMIC. By Mr. Lehman, of New York, October 20.

To provide for the national defense by enabling the States to make provision for maternity and infant care for wives and infants, and hospital care for dependents, of enlisted members of the Armed Forces during the present emergency, and for other purposes.

Referred to the Committee on Labor and Public Welfare.

Comment: Would establish a maternity and infant care program for dependents of enlisted personnel of the Armed Forces (below the grade of Warrant Officer) to be administered at the state level. The Children's Bureau would have available such sums as may be necessary to carry out the provisions of the bill and is authorized to assist states which have an acceptable plan. State Departments of Health would administer the program and would be required to make periodic reports called for by the Administrator of the FSA. The cost of the program would be supported equally by the federal government and the state. The creation of a State Advisory Council composed of representatives of medical, nursing, and hospital groups and the public is required. The Federal Security Agency Administrator would issue regulations after consulting with a committee representing state health authorities. The Administrator would consult also with a fifteen-member national advisory council representing medical, nursing, hospital groups and the public—Members of the advisory council to be selected by him.

These aforementioned provisions of the bill are similar to the program in effect during World War II. However, a second title to the bill seeks to establish a new program—a federal-state program on a fifty-fifty matching financial basis to furnish hospital services to *all bed patient dependents* of enlisted members of the Armed Forces regardless of age. A state would be required to submit a plan to be administered by its state health agency. As in the proposed EMIC program an advisory council must be established. A state program is also required to assure the furnishing of hospital services at reasonable costs. The Administrator of the FSA before making regulations would consult with a committee representing state health authorities. The Administrator would have a national advisory council similar to the one proposed by the EMIC program.

The bill contains definitions which apply to both the EMIC and the general hospitalization sections. The term "maternity care" means "such hospital, medical, nursing, and related services in connection with pregnancy and child-birth as may be included in regulations of the Administrator." The term "infant care" means "such hospital, medical, nursing and related services in connection with the care of an infant" (up to five years) as may be included in the regulations of the Administrator. The term "hospital services" means "the following services, drugs, and appliances furnished by a hospital to any individual as a bed patient: bed and board and such nursing services, laboratory services, ambulance service, use of operating room, staff services, and other services, drugs and appliances, as are customarily furnished by such hospital to its bed patients either through its own employes or through persons with whom it has made arrangements for such services, drugs, or appliances; but such term shall not include (1) any medical or surgical care except as is generally furnished by hospitals as an essential part of hospital care, or (2) hospitalization by any hospital which furnishes primarily domiciliary care."

S. 2246. CHRONIC DISEASES. By Mr. Lehman, of New York, October 11.

To amend the Public Health Service Act to authorize greater assistance to the States in extending and improving health services for the prevention and reduction of chronic diseases.

Referred to the Committee on Labor and Public Welfare.

Comment: With the exception of a minor addition of language this bill is identical with S. 4180, 81st Congress, introduced by Senators Lehman and Murray. Bill provides $10,000,000 annually to be available for distribution by the Surgeon General, U. S. Public Health Service, to states and state subdivisions in establishing and maintaining *public health services* for the *early detection of chronic diseases* and for the referral of sufferers of chronic diseases to medical personnel, hospitals, institutions, and agencies. The bill does not specify that funds provided be used for indigents only. Therefore it must be assumed federal funds could partly or wholly support programs for all persons regardless of financial status.

S. 2247. DIAGNOSTIC CLINICS. By Mr. Lehman, of New York, October 11.

To amend the Public Health Service Act to authorize grants to the States in extending and improving diagnostic out-patient health services.

Referred to the Committee on Labor and Public Welfare.

Comment: Identical with S. 4181, 81st Congress, which Senator Murray co-sponsored. Would authorize $25,000,000 for the first year and $50,000,000 annually thereafter so that the Surgeon General of the U. S. Public Health Service could assist, through grants, states and other political subdivisions of the states in establishing and maintaining *out-patient services* in hospitals and health centers for early detection of diseases and

(Continued on Page 1348)



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NEW SENATE LEGISLATION

(Continued from Page 1346)

referral of persons suffering therewith to medical personnel, hospitals, clinics and agencies. Financial assistance would also be used in providing treatment, home-care services, and community planning for the ambulatory sick. The bill does not specify that funds provided be used for indigents only. Therefore it must be assumed federal funds could partly or wholly support programs for all persons regardless of financial status.

S. 2248. GROUP PRACTICE AND DIAGNOSTIC AND HEALTH CLINICS.—By Mr. Lehman, of New York, October 11.

To authorize loans to assist in the establishment of clinics or medical groups, designed to afford improved diagnostic service or improved diagnostic and curative service.

Referred to the Committee on Labor and Public Welfare.

Comment: With the exception of adding one provision this bill is identical with S. 4182, 81st Congress, in which Senator Murray joined this author as a cosponsor. Would authorize $10,000,000 the first year and $20,000,000 annually for four succeeding years for distribution as loans by the Surgeon General, U. S. Public Health Service, to assist in the *establishment of clinics and medical groups* furnishing diagnostic or curative services. The Surgeon General would consult with a Federal Hospital Council (purely advisory). Eligible borrowers include: (1) A group of physicians, or physicians and dentists, authorized by state law to render medical and dental services; and (2) medical schools, teaching hospitals and other public or private organizations (this second classification must be non-profit), which maintain a staff of physicians engaged in diagnostic services or diagnostic and curative services. Physicians, or physicians and dentists, engaged in group practice, to be eligible for loans must conform to regulations issued by the Surgeon General by having a prescribed balance of specialists and general practitioners and prescribed office facilities, laboratory, nursing staff, and records. They must also render services to all patients referred by welfare agencies and agree to accept payment as specified by regulations. Medical schools, teaching hospitals and other nonprofit organizations to be eligible must also agree to conform with regulations. Ten year loans may be used for cost of acquisition, construction, and equipment of new facilities, or the expansion or alteration of existing buildings. Loans may also be used for meeting the cost of maintenance and operation not exceeding three years.

SOCIALIZED MEDICINE GAINS FROM CIO AWARD

The Committee for the Nation's Health, Inc., is $10,000 richer in its battle to promote socialized medicine in the United States—thanks to Senator James E. Murray (D.,-Mont.).

Business Action, a weekly paper from the Chamber of Commerce of the United States, reports that a plaque and a $10,000 check were awarded by the CIO to Murray for the senator's "outstanding service to humanity." Kind-hearted Murray announced that the money would be turned over to charity.

The charity he referred to is the Committee for the Nation's Health, Inc., headed by Channing Frothingham. The committee lobbies for socialized medicine in this country.

Honorary chairman of the Committee for the Nation's Health is CIO President Philip Murray (no relation to the senator), in whose name the $10,000 check to Senator Murray was given. The check and the plaque constitute the CIO Community Services Committee's annual Philip Murray award.—AMA Secretary's Letter.

PANEL MAJORITY URGES NO RESTRICTIONS ON UNION HEALTH PLANS; INDUSTRY DISSENTS

U. S. Wage Stabilization Board has been advised to approve *conventional* medical, surgical and hospital insurance as part of union contracts *without offsetting their cost against allowable wage increases.* The recommendation comes from a majority of a special tripartite panel appointed to determine to what extent these fringe benefits might be permitted without contributing unduly to inflation.

In effect, the labor and public members of the panel told the board their studies indicated that labor and management should be allowed to negotiate and put into effect any reasonable, average-type health insurance program, *without prior approval of the Wage Stabilization Board.* These benefits, they said, are not inflationary and for this reason need not be considered as wages, which are subject to definite controls.

Signing the report were the two *public* members of the panel, Wilbur J. Cohen, technical adviser to U. S. Social Security Commissioner, and John W. McConnell of the Twentieth Century Fund; and the two *labor* members, Harry Becker, director of the social security department, United Auto Workers (CIO), and Carl Huhndorff, director of research, International Association of Machinists (AFL). A dissenting report will be filed by the two *industry* representatives, Clifford F. Hawker, vice president, Armstrong Cork Co., and Frederick P. Sloat, actuary of the G. Gilson Terriberry Company.

The report reviews futile efforts to find a practical control yardstick for these benefits, but finally settles for only one limitation: a report to the board within sixty days after a program has been put in operation. The board then would be in a position to impose controls if necessary at some future date.

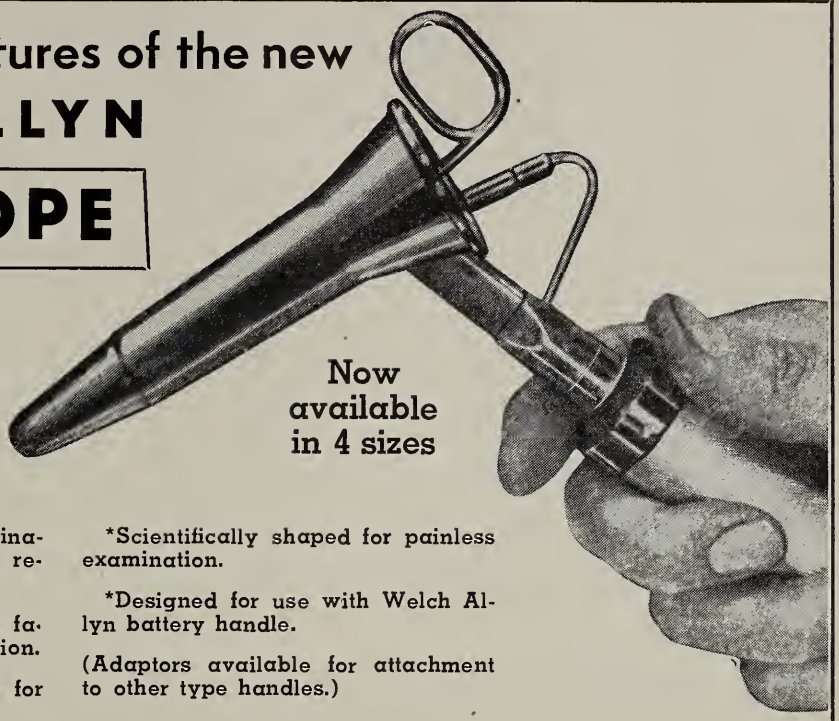
The problem arises because the wage stabilization policy tends to freeze the wide disparity in benefits among various union health and welfare contracts and to *halt the spread of health and pension plans in industry.* In recommending minimum standards for health programs, the majority suggests not less than seventy days protection for each hospital admission. Where medical programs are not available in the community, the report suggests cash indemnification be limited to payments for diagnostic services, major and costly illnesses and

(Continued on Page 1350)

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UMT COMMISSION OPPOSES SERVICEMEN'S DISABILITY BENEFITS FOR TRAINEES

The five-man National Security Training Commission, in its report to Congress on the Universal Military Training program for eighteen-year-olds, *recommends against placing trainees in the same status as servicemen for post-service medical benefits.* Instead, it proposes that disability and sickness growing out of UMT training be compensated for under Federal Employes Compensation Act, which is operated by the Labor Department. This is one of a series of proposals that will be acted on by Congress. The Commission was required to report a program by October 29, although Congress is not bound by its findings. On benefits, the report states:

"As a matter of principle, we do not believe the many ancillary benefits awarded to military veterans are warranted for trainees in a 6-months program; moreover, *we believe the cost would (be) exorbitant over a period of time,* even if, as is expected, the number of trainees who suffer disability as a result of injury or sickness should be very small."

In testimony before the Commission last August, the AMA opposed extension of medical and hospital benefits for any non-service-connected disabilities of UMT trainees. The AMA also urged that youths whose aptitudes indicated they could make their best contribution as trained professional men be deferred so they could finish their education. On this point, the Commission reported:

"We believe there should be *no deferments for college students other than the deferment through the current academic year.* . . . We believe that all persons who intend to enter upon the study of medicine, dentistry, the several sciences, or professional training other than military, should take their training in the corps before beginning such study." . . . However, the Commission said that Congress and the Defense Department should look into the *possibility of holding in abeyance the reserve status of an unspecified number of medical, dental and scientific students until they finished their education.* After that they would be subject to seven and one half years of reserve duty.

The Commission also recommended that (a) present physical acceptance requirements not be lowered for trainees, (b) trainees be given hospitalization, medical, surgical and dental care while members in the corps, (c) creation of a small group of civilian inspectors, responsible solely to the Commission, who will be free to inspect UMT units on such matters as health, housing, food and recreation.

On the issue raised by AMA that the government should not rehabilitate 4-Fs, the Commission only stated that the mentally and physically handicapped should be excluded from UMT. Other points raised by AMA but not discussed in the 123-page Commission report were (a) utilization of civilian physicians and reservists for pre-induction, induction and periodic physical examination and (b) establishment of a national civilian agency to insure proper distribution of medical and other health resources between civilian and military needs.

ARMY TO RECALL 165 DENTAL RESERVISTS IN JANUARY

The Department of the Army announced November 2 that it would order 165 recently commissioned dental Reserve officers to active duty in January. Dentists covered by the new call-up accepted commissions after registering with the Selective Service under provisions of Public Law 779 (doctor-dentist registration act). All were classified as Priority I.

Under the law, Priority I registrants are defined as those educated at Government expense or deferred from service to pursue a medical or dental education and who spent less than 90 days on active service in World War II following their training.

The precise date when dentists must report for duty under the new order has not been determined. All will receive at least 30 days' notice in which to arrange their personal affairs before reporting for the dental officers' basic course at the Medical Field Service School, Fort Sam Houston, Texas. Upon completion of the five-week orientation course, they will be assigned to medical installations here and abroad.

Quotas set for the six continental Army areas are as follows: First Army, 40; Second Army, 10; Third Army, 20; Fourth Army, 25; Fifth Army, 40; and Sixth Army, 30.

Regional quotas were determined by the Army after consultation with civilian dental and health authorities in order to ensure the continuance of adequate dental care in areas affected by the new call-up. To date, the Army has ordered 1,076 Priority I dental reservists to active duty, including November call-up of seventy-eight.

UNION HEALTH PLANS

(Continued from Page 1348)

care in hospitals or clinics. It proposes that fee schedules be based on Veterans Administration payments or fees used by physicians under community-wide nonprofit plans.

The report is in no way binding on Wage Stabilization Board. Like the panel, it too is representative of labor, industry and the public. Copies of the majority report, *Health, Welfare and Pension Programs Under Wage Stabilization,* may be obtained from the Wage Stabilization Board, Washington 25, D. C.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

VOLUME 50 DECEMBER, 1951 NUMBER 12

New Hope for Hearts

TODAY'S "New Hope for Hearts" is more than a slogan, it is a great and exciting reality . . . for today there is real HOPE in the fight against all types of heart disease. . . . HOPE for millions of heart invalids who can now, through knowledge of surgery, drugs, care and treatment, live useful and even normal lives. Without this knowledge and care, many of those now living would have died. HOPE, because the causes of heart disease can be learned through research; HOPE for our children who suffer from rheumatic fever and rheumatic heart disease. . . . HOPE in the prevention of recurrence of rheumatic fever. HOPE now exists for older people afflicted with heart disease. . . . HOPE in better management and prevention of complications.

Through its research, education and community service programs, the Michigan Heart Association is conducting an intensive triple-front attack upon all cardiovascular diseases . . . a concerted attack which will hasten the day when the control of heart diseases will be closer to realization. The heart research being carried out in Michigan under the sponsorship of the Michigan Heart Association helps to advance the level of scientific knowledge as well as to raise the calibre of medical care immediately available to the citizens of the State.

The continuing education of our medical doctors concerning newer knowledge of cardiovascular disorders will be continued and expanded along with the Association's public education program for it is recognized that such information must be disseminated if both the patient and the Doctor of Medicine are to benefit.

Active participation in community service projects such as health programs, urban and rural health betterment activities and many other functions will be continued during the coming year, as well as an expansion of already existing Association programs. The Doctors of Medicine and the people of Michigan may be certain that the Michigan Heart Association will continue to serve them honestly, sincerely, and competently.

Douglas Donald, M.D.
President
Michigan Heart Association

Heart Research in Michigan

By Franklin Johnston, M.D.

Chairman, Research Committee
Michigan Heart Association

Ann Arbor, Michigan

THE RESEARCH projects supported by the Michigan Heart Association may be divided logically into three groups.

The first of these is concerned with studies carried out on patients to evaluate new types of treatment or new diagnostic methods. For example: studies on the value of ACTH or cortisone in the treatment of acute rheumatic fever are being carried out under the supervision of Manes Hecht, M.D., and J. A. Johnston, M.D., of Detroit and by Noyes L. Avery, M.D., Grand Rapids, work being done by M. S. Chambers, M.D., Flint, and Donald C. Overy, M.D., Ann Arbor, to evaluate the place that the flicker photometer may have in the diagnosis of heart disease, and finally studies on the value of new anticoagulants are being directed by F. Janney Smith, M.D., Detroit. The importance of this type of research is obvious. Long clinical experience and good judgment are necessary in the interpretation of the results if the studies are to be worthwhile.

The second type of research is concerned with the development of new or improved methods for the diagnosis or treatment of heart disease and most of the remaining projects supported by the Michigan Heart Association fall into this group. Most of the studies being carried out by Gordon B. Myers, M.D., Detroit, and associates, those under the direction of Conrad R. Lam, M.D., Detroit, and the work being done by Sibley W. Hoobler, M.D., Ann Arbor, and his group may be placed in this category. It is scarcely necessary to point out that studies of this kind are just as important as those of the first group.

The third type of investigation has often been called fundamental or pure research. These terms imply that the studies are highly scientific and theoretical and may have no immediate practical value or application. Only one project aided by the Michigan Heart Association can be placed in this group. This is a study of "Streaming Potentials" being conducted by a young chemical engineer with help from David Bohr, M.D., of the Department of Physiology in Ann Arbor. Although some individuals might question the use of funds contributed by the public to support studies of this kind, some of the most important discoveries in recent years have been made directly or indirectly as a result of research that started with no practical objective in view.

Many research projects will be completed and little of immediate practical value be accomplished. Nevertheless, if the study has been carefully done and recorded with accuracy, it may at some later date serve as the starting point for an investigation of great value. Good research is done only by well-trained and scrupulously honest investigators, and great contributions are made by only a few men (or women) who have the spark of genius as well as the other basic qualities.

The Research Committee of the Michigan Heart Association is quite aware of these matters and is attempting to make the best possible use of funds that are available for research work primarily by careful selection of individuals who will be responsible for the projects.

Research Projects Supported by the Michigan Heart Association

In existence for slightly more than two years, the Michigan Heart Association has already sponsored twenty-one research projects into the perplexing problems of diseases of the heart and circulatory system. Promising clues and hints of exciting discoveries to come are uncovered from time to time in these projects; however, long painstaking, repeated tests and further explorations are necessary before valid conclusions can be drawn. Studies completed to date point up the great importance and need for continued research so that present techniques can be perfected and new techniques developed in order to bring about the alleviation of suffering and untimely death due to heart disease.

Support of the Michigan Heart Association through contributions to united campaigns has made the following research projects financially possible during the period from July 1, 1950, through June 30, 1951.

Current Research Projects

Wayne University College of Medicine, Detroit
Department of Medicine
Grant: (1950-1951) $21,600; (1951-1952) $23,200
Investigator: Gordon B. Myers, M.D.

This project is a continuation of previous work in cardiorenal research in the Departments of Medicine and Chemistry at Wayne University under the joint support of the Michigan Heart Association and the National Heart Institute. Eight scientific papers have been published during this year, and four additional papers were presented at national medical meetings. These deal with the effectiveness of an extremely low salt diet in patients who fail to respond to the usual methods of treatment of dropsy due to the heart, showing very beneficial results. Another paper deals with a new chemical agent, Regitine, which has proved to be a useful diagnostic and therapeutic agent in cases of high blood pressure due to tumor of the adrenal gland.

Catheterization of the heart is being used for selection of those cases of rheumatic heart disease which may prove to be suitable for operation on the deformed heart valve and also for the evaluation of the operative results. Twenty patients with mitral stenosis have been thus studied.

These studies on the dynamics of the circulation and on the various salts are being continued. In addition, preliminary studies in the use of a calcium complexing agent in the study of experimental hardening of the arteries has been started.

University of Michigan Medical School—Ann Arbor—Department of Internal Medicine
Grant: (1950-1951) $7,500; (1951-1952) $8,000
Investigator: Sibley W. Hoobler, M.D.

This grant was made to conduct research into the problems of hypertension and uremic poisoning. An artificial kidney has been constructed at the University of Michigan. It has been used successfully in the treatment of a patient suffering from poisoning due to shutdown of the kidneys and has also been used to remove an ultrafiltrate of blood from patients who have malignant hypertension to study the circulating substances which cause high blood pressure.

Henry Ford Hospital, Detroit
Department of Medicine
Grant: (1950-1951) $1,500.
Investigator: F. Janney Smith, M.D.

This grant was for the study of the clinical use of anticoagulant drugs in acute myocardial infarction. In all, 275 patients were studied. The effectiveness and dangers of two new anticoagulant drugs, Tromexan and Paritol, were compared with Dicumarol which had been extensively studied previously. The results of these studies are being incorporated statistically with figures from other parts of the country, and four papers have been published.

Hurley Hospital, Flint
Department of Internal Medicine
Grant: (1950-1951) $1,000
Investigator: M. S. Chambers, M. D.

These funds were made available to Dr. Chambers in December, 1950. The study is well under way, but it is too early as yet to furnish any factual report. The study is concerned with evaluating the usefulness of the flicker photometer as a method of detecting early evidence of diseases of the heart or blood vessels caused by hardening of the arteries.

Blodgett Memorial Hospital, Grand Rapids
Grant: (1950-1951) $1,000
Investigator: Noyes L. Avery, M.D.

This grant for the study of ACTH and cortisone in acute rheumatic fever was made available to the investigator in the middle of the year. In the last three months they have treated six cases of acute rheumatic fever with these hormones. In all cases there has been a prompt disappearance of the fever and of the pain. It is as yet too early to say what effect there will be on the ultimate outcome of these cases from the point of view of cardiac damage. These patients are being followed after their discharge from the hospital in order to evaluate this aspect.

Henry Ford Hospital, Detroit
Department of Surgery
Grant: (1950-1951) $9,000; (1951-1952) $6,000
Investigator: Conrad Lam, M.D.

A number of different advances in cardiac surgery have been studied in the Surgical Research Laboratory at Henry Ford Hospital as a result of this grant.

1. The *aortic valves have been transplanted* in dogs, proving that homografts of these valves survive very well and function as long as there is need for them. A paper based on these studies is being prepared.

2. *Sterilization of Homografts.*—Diacetyl ethylene was used in the sterilization of blood and plasma and for the storage of thoracic aortas obtained at routine autopsies, then stored and transplanted into another animal. Forty-one grafts were transplanted, but only fourteen functioned. It was concluded that the chemical used is detrimental to the vascular tissues.

3. *Mesothelial Grafts in Vascular Repair.*—A tube was made from the lining of a certain abdominal muscle and used to replace a complete segment of blood vessel. Roughly, one-half of these were unsuccessful. Better results were found later in the series due to improvement in technique as more experience was gained.

4. *Application of the Hathaway Electronic Pressure Recording System to Experimental and*

Clinical Cardiovascular Surgery.—This apparatus was first used in the aortic valve experiments described above and later its application in the study of patients undergoing mitral valve surgery. Thirty-four patients have been studied in this way. The degree of success attending this operation has been predictable by a study of postoperative tracings. This study has been presented before two scientific societies and was presented before the Forum of the International Society of Surgery in Paris in September, 1951.

5. *Effects of Ligation of Branches of the Intrathoracic Aorta.*—The intercostal arteries were ligated in ten dogs in order to study neurological sequelae which might be anticipated if large blow-outs of the aortas in humans are to be removed. One dog showed paralysis of the hind limbs which persisted and one showed a very transient paralysis. Details of this have been published in two scientific reports and were presented verbally at one surgical meeting.

University of Michigan, Ann Arbor
Department of Physiology
Grant: (1950-1951) $6,950
Investigator: David Bohr, M.D.

Studies in the Department of Physiology at the University of Michigan have been made in the field of high blood pressure research. The role of the nervous system and of certain hormonal factors have been studied. In addition, studies of the material put out by the artificial kidney have been made to determine their effect on blood pressure and kidney function. All of these studies have contributed towards finding new facts concerning high blood pressure and advancing our knowledge of this disease.

Children's Hospital of Michigan, Detroit
Grant: (1950-1951) $5,000; (1951-1952) $5,000
Investigators: Paul V. Woolley, M. D., and Manes Hecht, M.D.

This is the first year of a continuing study of the effects of the hormones, ACTH and cortisone, on acute rheumatic fever and on the ultimate outcome of these cases. Twenty-eight cases have been studied. A complete appraisal is not as yet possible, but it is becoming evident that neither cortisone nor ACTH will be the miracle drug in rheumatic fever that was originally hoped.

Henry Ford Hospital, Detroit
Department of Pediatrics
Grant: (1950-1951) $5,000; (1951-1952) $5,000
Investigator: J. A. Johnston, M.D.

This study was made to determine by balance methods the effect on the nutritional state of children of the use of ACTH in the treatment of acute rheumatic fever and rheumatic heart disease. It has formed the basis of a scientific paper and is being read before two different groups of pediatricians. It was found that although nitrogen loss was increased in the urine, there was a greater increase in intake, thus resulting in actual gain in body nitrogen, which is the source of tissue protein. Studies on calcium balance showed no consistent effect. The basal metabolic rate was also studied. This was found to fall when the hormone was given to patients with an active process. These studies point out that the negative balance of nitrogen seen when the hormones were given can be converted to a positive balance if the intake can be increased.

University of Michigan Medical School, Ann Arbor—Department of Internal Medicine
Grant: (1950-1951) $2,000; (1951-1952) $2,500
Investigator: Franklin D. Johnston, M.D.

Studies on vibrations of low frequency over the precordium carried out with the help of a grant from the Michigan Heart Association are of clinical importance because many of these vibrations can be seen or felt by any physician who is aware of their existence and will look for them. Most of them are inaudible because the frequency is below the audible range. The instrument that has been used to record these vibrations is not usually available to physicians in practice but the study of these phenomena by the average doctor is well worth while since their recognition may help in the diagnosis and in estimating the outlook of heart patients.

University of Michigan Medical School, Ann Arbor—Department of Surgery
Grant: (1950-1951) $2,575
Investigator: Cameron Haight, M.D.

Dr. Cameron Haight, assisted by Dr. R. Adams Cowley, has been engaged in the construction of a technical apparatus for measuring changes in the blood flow in the arteries of the heart, and it is hoped that this can then be applied to the improvement of methods for providing a new blood supply to alleviate the lack of blood to certain areas of the heart which may be responsible for angina pectoris and coronary thrombosis.

University of Michigan Medical School, Ann Arbor—Department of Pediatrics
Grant: (1950-1951) $5,000; (1951-1952) $5,000
Investigators: James L. Wilson, M.D., and A. L. Stern, M.D.

This grant was made for the continuation of research in congenital heart disease. This includes the improvement of existing diagnostic procedures. In addition, a new approach in the observation of the mental status of the "blue babies" is being made. Comparison of the blood oxygen levels before and after corrective heart surgery is being made with brain wave studies and psychological testing. To date, 100 children born with heart disease have been studied, and a considerable number have been recommended for heart surgery and successfully treated.

Harper Hospital, Detroit
Department of Research
Grant: (1951-1952) $6,000
Investigator: F. D. Dodrill, M.D.

This grant was made so that research work started in 1949 could be continued in the study of abnormalities of the heart by means of x-ray examination.

For the accurate diagnosis of some forms of heart disease, it would be helpful to determine just how the blood flows through the heart chambers and the great vessels. If surgical treatment is contemplated, it becomes of utmost importance to determine, as accurately as possible, not only the precise nature of the trouble but also the extent of the disorder and where in the heart or great vessels it is located. The ingenious diagnostic x-ray technique, which has been developed in this research project, consists of the x-ray motion picture photography of the passage through the chambers of the heart and the great vessels of radio-opaque material which has been injected into the large vein. The physician and surgeon may then study the projected film to learn the nature, magnitude and exact location of the trouble. This technique is particularly useful in studying congenital or developmental cardiac defects. At present, research is being directed toward the surgical correction of congenital defects in the wall that separates the auricles of the heart, a spectacular attack upon disease which is almost inaccessible, being in the very center of the interior of the heart.

University of Michigan Medical School,
Ann Arbor—Department of Pharmacology
Grant: (1951-1952) $4,000
Investigator: F. E. Shideman, M.D.

Present-day treatment of cardiac failure emphasizes a dietary restriction of sodium chloride and elimination of sodium from the body by means of various diuretic drugs. Sometimes these methods are not too successful. This investigation into the biochemical pathways by which sodium chloride is handled by the kidney has as its ultimate objective the discovery of a means by which it may be possible to inhibit the renal tubular reabsorption of sodium in a manner already known to be possible in the case of penicillin through the action of Carinamide which suppresses its tubular secretion.

Henry Ford Hospital, Detroit
Department of Medicine
Grant: (1951-1952) $1,000
Investigator: Ben E. Goodrich, M.D.

Normal subjects show increased arterial capillary oxygenation during exercise as shown by continuous photo-electric determinations of capillary blood in an ear lobe. The influence of standard exercise upon capillary oxygenation in patients with angina pectoris and the electrocardiographic abnormalities will be studied, utilizing normal room air and one hundred per cent oxygen. The behavior of peripheral capillary blood oxygenation under these circumstances is not known at the present time.

University of Michigan Medical School,
Ann Arbor—Department of Surgery
Grant: (1951-1952) $1,700
Investigator: Cameron Haight, M.D.

A two-fold study of respiratory function and cardiovascular evaluation in the cardiac patient as well as a more detailed study of the cardiac function of patients who are to undergo pulmonary operations. This will be correlated with already existing facilities for determining respiratory function.

University of Michigan, Ann Arbor—Department of Chemical and Metallurgical Engineering
Grant: (1951-1952) $1,320
Investigators: Cedomir Sliepcevich, Ph.D., and Mr. Phillip E. Bocquet

This grant is to provide a fellowship for Mr. Phillip E. Bocquet. He is to study the application of the "streaming potential" to various physiological mechanisms. This is a fundamental type of research in which the field of chemical engineering is being applied to a body mechanism in order to develop new means of measuring and testing body function to provide ultimately new, speedier and more accurate means of diagnosis of cardiac disorders.

Henry Ford Hospital, Detroit
Department of Medicine
Grant: (1951-1952) $500
Investigator: B. E. Goodrich, M.D.

The coagulation of the blood plays an important part in the causation of coronary thrombosis. This project concerns itself with the study of the effect of certain drugs and other substances on the clotting of the blood in the arteries of the body. This project is a continuation of work started in 1949.

Wayne University College of Medicine, Detroit
Department of Microbiology
Grant: (1951-1952) $500
Investigator: Fred Rights, Ph.D.

The exact organism responsible for weakening of the heart muscle due to inflammation has not as yet been definitely identified. Because bacteria have not been isolated from the blood of persons with this disease, it has been assumed to be due to a virus. The purpose of this project is to study the blood and other specimens from persons acutely ill from "pericarditis" and "myocarditis." This study will endeavor to isolate the exact virus or other organism responsible. This step is necessary in order that the correct antibiotic can be chosen to combat this infection as early as possible.

Education and Community Service Projects

By Carleton Dean, M.D.
Chairman Program Committee
Michigan Heart Association
Lansing, Michigan

SIDE BY SIDE with the march of research during the past year has been the accelerated tempo of the Michigan Heart Association's programs of Education and Community Service.

Public and Professional Information

Although research is the primary aim of the Michigan Heart Association, another important major facet of its many essential activities is the continuing development of a vigorous binary educational program. One function of this dual-purpose program is designed to increase public understanding of heart disease as well as to interpret the policies, projects and plans of the Michigan Heart Association. Another phase consists of providing the Doctor of Medicine with the most recent scientific information available on cardiovascular diseases.

In order to eliminate fear of heart disease, to prevent harmful misconceptions, to tell the people of Michigan how they can protect their hearts and to keep them informed of the progress being made in controlling and treating cardiovascular diseases, realistic and authentic information is presented to the public through various communication media. This includes news releases and stories, radio announcements and programs, magazine articles, television broadcasts, speakers bureaus, motion pictures, exhibits, pamphlets, letters, bulletins, et cetera. These activities are continually being broadened in scope as new demands for the latest information on diseases of the heart and circulatory system are made and new knowledges become available.

To help the Doctor of Medicine keep pace with new theories and techniques in the cardiovascular field is one of the primary responsibilities of the Michigan Heart Association. Existing knowledge, the most recent scientific discoveries, and the latest advances in diagnosing, treating, and controlling heart diseases are brought to the medical profession by means of postgraduate courses, scientific meetings, symposia and by the presentation of scientific papers in the annual "Heart Number" of THE JOURNAL of the Michigan State Medical Society.

Through the judicious use of all communication media, a wholesome, effective and well-rounded information program, based on sound educational principles, has been developed and expanded since its inauguration in January, 1950. Those who direct these media have co-operated fully in making their services available so that this program has been brought to the people of Michigan on a most economical basis.

Rheumatic Fever Control

The Michigan Heart Association has designated more than $23,000 for the financial support of the Rheumatic Fever Control Program of the Michigan State Medical Society. The program has as its ultimate objective the reduction of rheumatic fever and rheumatic heart disease in Michigan to a practical minimum.

A brief look at medical statistics shows the importance and need for continued support of this program which is so vital and essential to the good health of the children of Michigan. Rheumatic fever, commonly referred to as childhoods greatest enemy, is responsible for more deaths in the school age group than polio, whooping cough, diphtheria, measles, and meningitis combined. Further analysis of statistics reveals that rheumatic fever, including rheumatic heart disease, (1) ranks with tuberculosis as a great disabling, chronic disease; (2) except for accidents, is the most common cause of death among school children; (3) is the second most common cause of death by disease in the twenty to twenty-four age group; and (4) causes much of the heart disease in later life.

Since its inception, this program has increased from an original pilot control center to thirty Rheumatic Fever Diagnostic and Consultation Centers located in fifteen well-defined areas throughout the State where difficult cases can be accurately diagnosed and treatment recommended to the referring Doctor of Medicine. Thus, the Centers, established on a voluntary basis, place the most modern medical diagnostic service within the reach of every child or cardiac in Michigan, provide a consultation service to the general practitioner, and serve as a center for authentic information on the subject of rheumatic heart disease.

The Rheumatic Fever Program, originated and developed by the Michigan State Medical Society, has been recognized throughout the United States as one of the most effective means yet devised for directing maximum force against this dread disease.

Occupational Cardiology

The Occupational Cardiology Program is a two-fold project under the direct supervision of John G. Bielawski, M.D., Detroit, involving (1) a study of the problems of heart disease in industry and (2) the development of the Cardiac Housewife Program.

The industrial cardiology phase of the project is concerned with the establishment of proper methods of discovery of heart disease in the individual when first entering employment. Also under study are methods of determining the working capacity of those persons afflicted with heart disease and the proper selective job placement of these individuals in work suitable to their physical capacity. Although this project is in the study or research stage at present, it is an important step forward in the Michigan Heart Association program being developed to increase employment opportunities for individuals with heart disease.

The Cardiac Housewife Program, which constitutes the second important phase of this project, has been developed to show the homemaker, whose work capacity is limited by heart disease, how to conserve her time and energy in the performance of her daily household tasks. Time and energy conservation means a decrease in the strain placed on the heart by reducing the physical effort expended to a minimum through more efficient housekeeping methods.

The initial study on the program was conducted by Mrs. Frances G. Sanderson, Professor of the Home Economics Department at Wayne University in Detroit. From these studies, a complete course of instruction was developed which is designed to fill the doctor's prescription of "take it easy" by showing the homemaker with a cardiac disorder how to save as much as 75 per cent of her walking, 75 per cent of her movements and 60 per cent of her reaching while performing her daily household tasks. Classes in work-simplification techniques for women cardiac patients have been offered by the Michigan Heart Association at Wayne University for the past several months.

Early in 1951, the Michigan Heart Association made a grant of funds to the School of Home Economics at Michigan State College to develop a similar program for women cardiac patients throughout the entire State of Michigan. Mrs. Ruth C. Kettunen, of the College Home Management Staff, was appointed to conduct this new phase of the program. Working through the Home Economics Extension Service of the College, classes in work-simplification have already been organized by the Michigan Heart Association in several counties of the State. These include Ingham, Berrien, Kent, Genesee, Isabella, Grand Traverse, Benzie, and Leelanau Counties. The program is continuing to expand and eventually will be made available to every community in the State.

A sum of $12,500 has been allocated to the Occupational Cardiology Program, including grants of funds to Michigan State College and Wayne University.

Michigan Health Council

In addition to the far-reaching programs delineated above, the Michigan Heart Association also provided financial support to the Michigan Health Council. The Council's primary function is to promote and encourage the development on a community level, health projects of all Michigan organizations which have a major interest in health. During the past fiscal year, the Michigan Heart Association assigned $1,000 to this important work which is being effectively carried out through voluntary and co-operative action by community health councils in Michigan.



MEMORIAL CONTRIBUTIONS

All funds used by the Michigan Heart Association are obtained from your contributions to United campaigns in Michigan. However, exception has been made so that contributions in memory of the deceased may be made directly to the Michigan Heart Association Memorial Fund.

Blood Lipids and Human Arteriosclerosis

By Harry E. Ungerleider, M.D., and Richard Gubner, M.D.

New York, New York

STATED REALISTICALLY, arteriosclerosis is a pathological and not a clinical diagnosis. Procedures such as the electrocardiogram and tests of the peripheral circulation indicate only that organ function is impaired associated with a reduction in blood flow; they do not actually demonstrate the presence of arteriosclerosis. A direct clinical demonstration of arteriosclerosis of the major vessels of the atherosclerotic type can be made only in advanced stages, when calcification, which is such a frequent concomitant of atheromatous deposits, has occurred. It has long been known to pathologists that arteriosclerosis of the atherosclerotic type is most prevalent and most marked in the abdominal aorta and iliac arteries.

Recently we have completed an extensive study in our laboratory concerned with the feasibility and utility of the demonstration of calcification of the abdominal aorta and iliac vessels by roentgenologic methods.[40] It may be of interest to review the findings briefly in relation to other signs of arteriosclerosis, and certain features in their relationships to the development of arteriosclerosis such as age, obesity, blood cholesterol levels, diabetes and hypertension. Table I indicates the frequency of various signs of arteriosclerosis in 320 consecutive, unselected insurance applicants who were studied in the Diagnostic Laboratory at the Home Office of the Equitable Life Assurance Society.

Calcification of the abdominal aorta was present in seventy-seven cases, two and half times more frequent than any other sign of arteriosclerosis. Definitely abnormal electrocardiograms were present in thirty subjects, calcified iliac vessels of the atherosclerotic type in twenty cases, calcification of the aortic knob in fifteen cases, and a reversal of pulsation in the kymogram in eight cases. It is seen also in this table that in the majority of cases

TABLE I. SIGNS OF ARTERIOSCLEROSIS (320 CASES)

	Total	Alone	In Combination
Abdominal Aorta	77	40	37
Iliac Arteries	20	4	16
Aortic Knob	15	7	8
Electrocardiogram	30	12	18
Kymogram	8	5	3
Medial Sclerosis	32	11	21
Wide Aortic Arch	30	9	21

abnormal electrocardiograms and calcification of the iliac vessels and of the aortic knob occurred most frequently in association with other signs of arteriosclerosis, and were less commonly present as isolated findings. The medial type of arteriosclerosis as seen in the iliac and femoral vessels was observed in thirty-two cases, and tortuosity of the aortic arch in thirty cases. These, too, occurred more commonly in association with other signs of arteriosclerosis.

Figure 1 indicates the age distribution of the 320 subjects studied and the incidence of arteriosclerosis in each age group. Medial sclerosis occurred more frequently than indicated in this graph. Where it occurred in association with atherosclerosis, the case was included in the atherosclerotic group. The cases comprising the groups with atherosclerosis included all subjects with one or more signs of atherosclerotic arteriosclerosis mentioned above. The increase in incidence of arteriosclerosis with advancing age is clearly evident in this graph. Arteriosclerosis was found in fully half of subjects between the ages of fifty-one and fifty-five and was present in 75 per cent of cases above the age of fifty-five. A further analysis of the cases observed is shown in Figure 2 where the incidence of arteriosclerosis in various age groups is analyzed in three groups: (1) those with slight elevation of the blood pressure, and it should be emphasized that the blood pressure was within insurable limits in all subjects (fifty-three cases), (2) subjects with glycosuria (eighty-two cases), (3) subjects studied for miscellaneous reasons such as amount of insurance applied for, extrasystoles and various other borderline findings (185 cases). It is seen in this graph, as is well known, that both hypertension and diabetes accentuate the development of arteriosclerosis. All nine cases with glycosuria between the ages of fifty-six and sixty showed evidence of arteriosclerosis, and all seven subjects with elevated blood pressure in this age group similarly showed evidence of arteriosclerosis, compared to an incidence of eleven among twenty total cases in the same age group in individuals

Read at the Second Annual Heart Day of The Michigan Heart Association, Detroit, March 17, 1951.

Dr. Ungerleider is Director of Medical Research, Equitable Life Assurance Society of the United States. Dr. Gubner is Assistant Director.

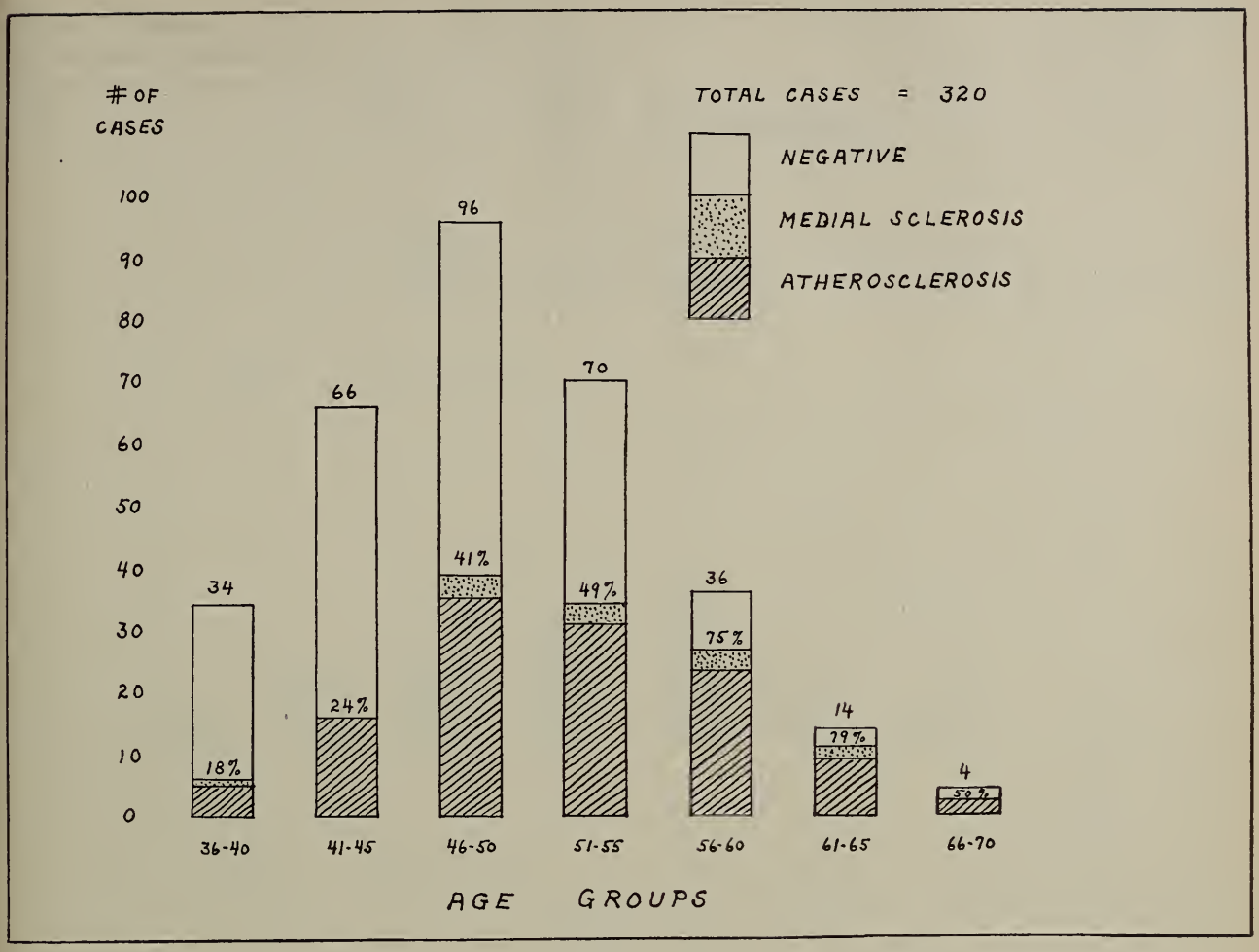


Fig. 1.

who had neither high blood pressure nor glycosuria.

The frequency with which a diagnosis of arteriosclerosis can be made clinically, as indicated by this study, is of interest, but the findings that the frequency of arteriosclerosis increases with age, with hypertension, and with diabetes, are scarcely novel or unexpected. Two other observations, however, revealed by study of the data, are of some interest. Exact height and weight were determined in all subjects, permitting an analysis of the relationship of body build to arteriosclerosis. This analysis was confined to subjects under the age of fifty-five, and to those who did not have either elevated blood pressure or glycosuria. This was done to exclude the factors which are known to contribute to the development of arteriosclerosis, namely, age, elevated blood pressure, and diabetes. Of forty-one cases with atherosclerosis thus studied, the average body build was 9.3 per cent overweight. Among ninety-four cases of similar type with no evidence of atherosclerosis, the average body build was 7.8 per cent overweight. The difference is so slight as to appear insignificant, and lays open to doubt the widely held view that obesity of itself predisposes to the development of arteriosclerosis. It may well be that whatever relationship obesity bears to arteriosclerosis is an indirect and remote one, mediated by the greater incidence of hypertension and diabetes in obese individuals.

A further observation of interest has been an analysis of the relationship of blood cholesterol to arteriosclerosis. Determination of blood cholesterol was carried out in fifty-three subjects with glycosuria. Table III illustrates the incidence of arteriosclerosis according to the level of blood cholesterol. Even though the number of cases is small, one finding is striking. A conspicuous absence of arteriosclerosis is evident in subjects with very low levels of blood cholesterol, i.e., under 150 mg. Above this low level of cholesterol the incidence of arteriosclerosis is fairly similar regardless of the level of cholesterol. These findings are con-

firmatory of the study we reported in 1949 before the American Heart Association.

A very substantial body of experimental and clinical evidence has accumulated during the past few decades incriminating cholesterol in the genesis of arteriosclerosis. It is our purpose here to survey the role of cholesterol and other lipids in the development of arteriosclerosis. It would appear appropriate first to review some of the physiological aspects of cholesterol metabolism since it is from this vantage point that the pathological physiological changes which occur in arteriosclerosis can best be understood.

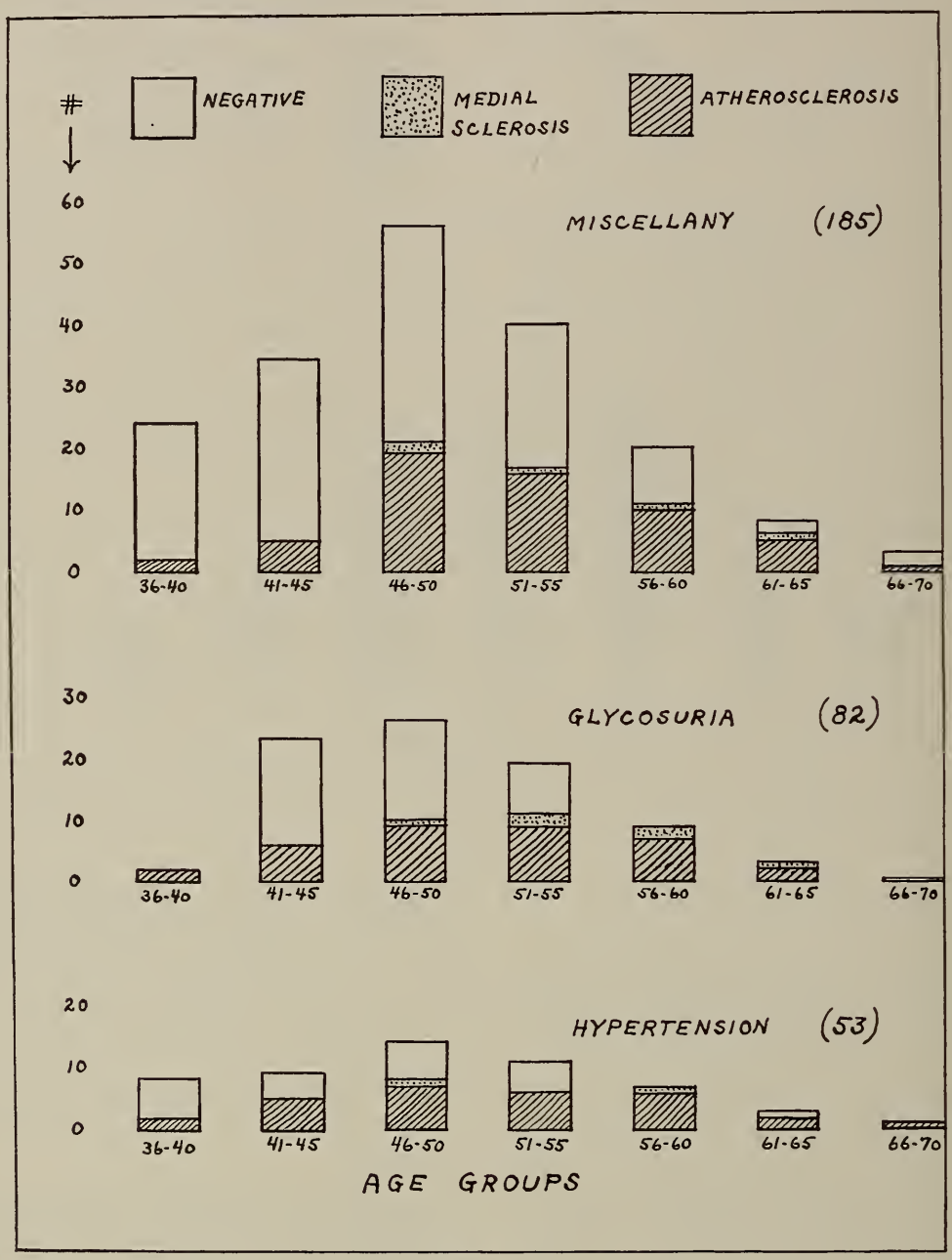


Fig. 2.

Cholesterol is a universal constituent of body tissues. Whether it be metabolically active or, as appears more probable, is a template of colloidal chemical reactions, is not as yet known. Cholesterol is a precursor of cholic acid,[14] of steroid hormones such as pregnandiol,[11] and a biological precursor of other steroids such as vitamin D.[77] The utilization of cholesterol in the synthesis of steroid hormones is particularly evident in the adrenal glands which normally contain large amounts of cholesterol. Rapid depletion of adrenal cholesterol occurs under conditions stimulating activity of the adrenal cortex, and in fact, assay of

TABLE II. OVERWEIGHT AND ARTERIOSCLEROSIS

	Number Cases	Per Cent Overweight
Atherosclerosis	41	9.3
No Atherosclerosis	94	7.8

(All subjects under age 55, normal blood pressure, no glycosuria)

TABLE III. CHOLESTEROL AND ARTERIOSCLEROSIS

	Under 150	150-199	200-249	250-299	Over 300
Number Cases	6	23	21	6	7
Number with Arteriosclerosis	0	13	8	3	4
Per cent with Arteriosclerosis	0	56.5	38	50	57
Average Age	47.2	48.7	48.4	51.2	49.0

adrenal cholesterol serves as a test of adrenal cortical function. In the serum as suggested by Bloor,[15] and others, cholesterol, which exists in close relationship to phospholipids and serum proteins, performs the important function together with these constituents, of preserving colloidal equilibrium.[5,15,26,44] The hydrophobic, insoluble cholesterol owes its high concentration in the serum of man to agents which allow it to be carried in colloidal dispersion. Phospholipids as suggested by Bloor[15] and more recently by Ahrens and Kunkel[5] appear to be significant in this regard, for serum phospholipids which are surface active compounds with strong polar groups solubilize the hydrophobic cholesterol and neutral fats.

Cholesterol in the body is derived from two sources, endogenous synthesis and that ingested in the diet. As indicated by studies with isotopically labeled compounds, cholesterol synthesis involves the condensation of numerous small-sized molecules of which acetic acid is the most efficient precursor.[13] Available evidence suggests that the majority, if not all, carbon atoms of cholesterol are contributed by acetic acid. Synthesis of cholesterol occurs primarily in the liver.

In a recent review of the intermediary metabolism of cholesterol, Bloch has indicated that he has been unable to demonstrate the occurrence of cholesterol synthesis in testes, spleen, intestines, kidney, and the heart, but remarked that it would be "unwarranted to state at this time that cholesterol synthesis is confined to the liver."[12] Others[39] have suggested that synthesis of cholesterol may occur in other tissues such as the intestinal mucosa and the skin, as well as the liver. There is some evidence of a reciprocal relationship between exogenous supply and endogenous synthesis of cholesterol, for when cholesterol is fed, the rate of synthesis is decreased.[82]

Destruction of cholesterol in the body does not ordinarily occur to any significant degree and is probably not a major factor in regulating blood cholesterol. Cholestanol, the hydrogenation product of cholesterol, is found in small concentration in the blood serum:[75] cholestenone, the unsaturated ketone which is the initial stage in degradation due to coprosterol, has been isolated in body tissues.[72]

Approximately 0.3 gm of cholesterol and its degradation product are lost through the intestines daily. The major part of sterol excretion takes place directly into the intestine, particularly the large bowel.[15] The following mechanism has been suggested by Gubner and Ungerleider.[41] Cholesterol is not stored in the body as is fat, fatty tissues containing little or no cholesterol. However, a considerable repository of cholesterol is present in the lymphocytes. Serum cholesterol varies inversely with the total leukocyte count in infection. The intestines are the main pathway for the disposal of lymphocytes and this may well provide an important mechanism for excretion of sterols.

The degradation of cholesterol proceeds by oxidation to the ketone cholestenone, followed by reduction to coprostanone and further reduction to coprosterol.[7] The primary oxidation of steroids to the keto form appears to occur in the cecum through the action of coliform microörganisms.[45,47,74,75] The sequence of chemical changes in cholesterol degradation may be represented in the following manner: cholesterol to cholestenone to coprostanone to coprosterol. Coprostanone and coprosterol cannot be absorbed from the intestines and once formed are excreted. Cholestenone, however, can be reconverted to cholesterol. A certain portion of cholesterol is degrated by reduction to dihydrocholesterol which, like coprosterol, is not absorbed and is excreted in the feces.

The presence of cholesterol in the intestines is not solely an excretory event, for it plays an important role in fat absorption and transport. In this respect cholesterol performs some of the same functions as bile acids and goes through the same cycle of the excretion via the biliary tract, resorption in the intestines, and circulation in the blood back to the liver. The daily biliary excretion of cholesterol is at least 0.5 Gm. and of bile acids 2 Gm. Cholesterol in the bile as well as that in the

diet is in the free (non-esterified) form.[89] The daily cholesterol intake in the mixed diet of the adult varies from 200 to 360 mg.; on a low fat diet it ranges from 39 to 109 mg.; whereas fat rich diets may contain up to 1400 mg. of cholesterol.[20] In the intestines cholesterol serves as a major vehicle for the absorption of fatty acids, particularly the highly important unsaturated fatty acids. The mechanism whereby this occurs may be briefly described as follows: Fatty acids which are liberated by the action of pancreatic lipase on neutral fats are esterified with cholesterol by pancreatic cholesterol esterase, which is activated markedly by bile acids. The esterified cholesterol is transported into the epithelial cells of the intestines, unesterified cholesterol itself being absorbed poorly if at all. To be absorbed, therefore, cholesterol requires the presence of fat, pancreatic enzymes and bile salt. If any of these be lacking, cholesterol absorption is greatly impaired. Thus, in animals on a fat free diet, cholesterol which is administered can be recovered quantitatively in the feces.[19]

Both in absorption and in transport in the blood stream there appears to be a remarkably constant concentration and division of the various lipid fractions in any individual, suggesting a dynamic interdependence and relationship. Particularly is this true for the ratios cholesterol to cholesterol esters, and cholesterol to phospholipids. Neutral fat, which usually comprises the smallest fraction of the fatty acids of the plasma, is somewhat more independent and variable. The clinical significance of the close interrelation between the various lipid fractions of plasma lies in the realization that blood cholesterol concentration must not be considered alone but in terms of lipid metabolism as a whole.

The reason for the constancy of the partition of fatty acids between cholesterol esters and phospholipid lies in the regulatory activity of the liver in transferring fatty acids from cholesterol to phosphatides. In the liver, cholesterol esters which are formed in the intestine as a vehicle for fatty acid absorption and transport are transferred to choline phosphatides, i.e., lecithin, in preparation for further stages of fat metabolism. The turnover rate of liver phospholipid is accelerated by choline and its precursors,[18] although lately this has been questioned.[21] In subjects with liver disease,[22] and in choline deficiency and in hypothyroidism[15] the transfer of fatty acids from cholesterol esters is impaired. Lipotropic agents stimulate phospholipid turnover. The mechanism of action of choline and thyroid hormone are interrelated for choline must be present for thyroxine to exert lipotropic action.[32] In fatty livers produced by choline deficiency a great accumulation of cholesterol esters occurs in the liver. Conversely, lipotropic agents such as lecithin, choline, methionine, inositol, betaine and thyroid hormones speed up the removal of fatty acids from cholesterol, allowing the liver to pass free cholesterol into the bile.

The range of variation of the serum cholesterol in normal individuals is very great, and has been the subject of several recent studies.[35,54,55] In the same individual, however, the range of variation is not ordinarily considerable. The ratio of free cholesterol to total cholesterol in normal adults lies at a mean of 0.28 with a minimum of 0.24 and maximum 0.32.[70,78]

Numerous factors have a bearing on the level of the serum cholesterol. No significant differences exist between the determinations carried out in the basal state and the non-basal state.[54] Significant racial differences exist, but whether this is due to genetic factors or differences in diet or other environmental considerations is not clearly understood.

While it has been known since 1893[16] that the lipid disturbance xanthoma tuberosum has a strong hereditary basis, it is only recently that it has been recognized that this is but one manifestation of familial hypercholesterolemia, which is a very common variant of cholesterol metabolism inherited as an incomplete dominant trait.[2,6,16,17,86,88]

There is a tendency toward higher values for serum cholesterol in females than in males which is most pronounced in adolescence and early adult life,[55] although in another study no significant sex difference was observed.[54] It is well known that the serum cholesterol rises in pregnancy; this increment of cholesterol amounts to from 50 to 100 per cent of the normal non-pregnant concentration.[71] The level of serum cholesterol rises significantly with age.[54,55] At the age of 20 in normal males the mean value is 173.7 mg. per cent with a standard deviation of 32.0. At age 40 the mean is 219.4 mg. per cent with a standard deviation of 38.6. At age 60 the mean is 253.3 mg. per cent with a standard deviation of 33.6. 90 per cent of the normal male population fall below a level of 226 at age 20, 284 at age 40, and 309 at age 60. 98 per cent fall below 248 at age 20, 312 at age 40 and 343 at age 60.[54]

Body constitution as expressed by the anthropometric index bears a significant relation to the level of blood cholesterol.[37,55] Higher values are present in pyknic (hypersthenic) than in leptosomatic (asthenic) subjects, or expressed in terms of the Sheldon system of somatotyping, cholesterol is highest in endomorphs and lowest in ectomorphs. Although physique as expressed in constitutional types is related to serum cholesterol, weight as such has no bearing on the level of cholesterol and cholesterol levels are no higher in obese individuals than in subjects of normal weight.[37]

Variations in diet, unless extreme, have no influence on the level of blood cholesterol.[14,53,87] In diets of choice, the absolute amount of carbohydrate, fat, protein and cholesterol bear no demonstrable relation to the level of total serum cholesterol. Complete elimination of fats and cholesterol from the diet as in the rice-fruit diet employed in hypertension, produces a significant fall in blood cholesterol.[53,85] Similar marked reduction in serum cholesterol concentration has been attained by fat-free diets consisting entirely of protein hydrolysate and dextrimaltose.[61] Such diets cannot be maintained comfortably for any considerable period, and upon resumption of a normal diet the serum cholesterol rapidly returns to previous levels. The fall in cholesterol on a lipid-free diet is not due to dietary elimination of cholesterol but rather to elimination of fats.[41] Little or no effect on the blood cholesterol is observed with marked variations in the amount of cholesterol in the diet, but on the other hand, a quantitative relationship exists between the cholesterol content of the body and the amount of fat fed on the constant sterol-poor diet.[30] The reason for this is that absorption of cholesterol occurs only in the presence of fatty acids and on a fat-free diet cholesterol which is ingested or is excreted into the intestines directly or via the biliary tract is quantitatively excreted in the feces.[41]

The level of serum cholesterol is influenced by many metabolic factors and is altered in numerous disease states which are too well known to require comment. Situations attended by changes in the serum cholesterol are discussed in detail in treatises such as that of Peters and Van Slyke.[71] Best known perhaps are the elevation of serum cholesterol in uncontrolled diabetes mellitus, obstructive jaundice, myxedema, and nephritis, particularly in the nephrotic stage. In severe liver disease the level of serum cholesterol, particularly the ester fraction, is reduced. A lowered level of serum cholesterol is observed also in hyperthyroidism and in many febrile diseases as well as chronic debilitating states.

Interest in cholesterol metabolism has centered on its role in arteriosclerosis since the demonstration by Anitschkow that arteriosclerosis can be produced experimentally by the feeding of cholesterol.[8] Cholesterol fulfils Koch's postulates in arteriosclerosis but, as recently stated by Dock,[27] while we know its etiology, we have only a vague idea as to the pathogenesis of arteriosclerosis. Some authoritative observers such as Tannhauser[83] still hold that "arteriosclerosis (atherosclerosis) has no primary etiological connection with cholesterol metabolism. It is a disorder affecting the elastic structure and the ground substance of the vascular walls with secondary cholesterol imbibition and precipitation of cholesterol in the altered tissues." A large mass of evidence implicating cholesterol in the genesis of arteriosclerosis has accumulated during the past few decades, which has recently been reviewed by Gubner and Ungerleider.[41] Thus there may be mentioned the experimental production of atherosclerosis in the rabbit, guinea pig, chicks and dogs by sustained elevation of blood cholesterol. Clinically, it is well known that there is an increased incidence of atherosclerosis in conditions associated with significant hypercholesterolemia, such as essential xanthomatosis and other lipoidoses, diabetes mellitus, myxedema and nephritis. Several investigators have reported a high frequency of hypercholesterolemia in subjects with coronary artery disease.[25,58,68,80,84]

The objection to the etiological role of cholesterol in arteriosclerosis which is predicated on the fact that arteriosclerosis occurs commonly in the absence of hypercholesterolemia, is vitiated by the recent observation that the so-called "normal" cholesterol is in reality a high cholesterol, and that the cholesterol level of the average American population is of such an order as to predispose to the development of arteriosclerosis. In this study[41] as well as in a more recent report,[40] it was found that, while the incidence of arteriosclerosis is approximately the same in subjects with average levels of blood cholesterol as in those with slight hypercholesterolemia, low levels of serum cholesterol confer a significant protection against the development of arteriosclerosis. In individuals with a level of serum cholesterol below 150 mg. per cent, there is a conspicuous absence of arteriosclerosis.[40]

Recent studies have emphasized that the role of

cholesterol in arteriosclerosis cannot be viewed as an isolated entity but must be considered in its relation to other serum lipids. "If cholesterol is the actual culprit in arteriosclerosis, fat is an active accomplice. Not only are cholesterol and fat found together in food sources, but they are integrally associated in intestinal absorption, in transport in the blood stream, and in early atheromatous deposits."[41]

Moreton has recently proposed that differences in fat tolerance which are unrelated to the level of serum cholesterol, may be responsible for the predisposition to arteriosclerosis.[62,63,64] Following the ingestion of fats, fat particles may be observed in the blood serum microscopically and may be quantitatively counted.[33] These fat particles which are called chylomicrons are macromolecular bodies which are composed chiefly of neutral fats but also contain cholesterol. A variety of macromolecular colloids, as Hueper[46] has shown, penetrates the endothelial cells of the arterial intima to form foam cells, which constitute one of the initial changes in the development of atheromata. It is believed that these foam cells are carried into the arterial subintima where they degenerate leaving a lipoid residue which constitutes the lesion of arteriosclerosis. Moreton, employing a nephelometric method for the quantitative study of the chylomicronemia following a standard test fat meal, has presented evidence that chylomicronemia varies considerably in different individuals, and has suggested that those subjects with high and sustained chylomicron counts following ingestion of fats may be predisposed to the development of arteriosclerosis. Becker and his co-workers[10] have found that in older age groups who are predisposed to arteriosclerosis, as contrasted with younger individuals, following the ingestion of fat there is a consistently and considerably higher as well as much more sustained degree of chylomicronemia. Zinn and Griffith have found that the ratio of large fat serum droplets (chylomicrons) to total fat serum droplets (lipomicrons) is much higher in subjects with diabetes and atherosclerosis than it is in normal individuals.[90] Chylomicronemia can be greatly reduced by reducing the fat intake and by potent lipases such as pancreatic lipase and also by surface active detergents.[10,33]

It has already been mentioned that the hydrophobic, insoluble cholesterol owes its high concentration in the serum of man to agents which allow it to be carried in colloidal dispersion. This is made possible by phospholipids and the serum proteins which form lipoprotein complexes. It has been known for some time that the solubility of cholesterol in the serum, which is determined by phospholipid and lipoprotein complexes, varies greatly with a striking decrease in older individuals beyond the sixth decade, particularly in subjects with arteriosclerosis.[28,29,60,76] Recently there has been an awakened interest in the solubilizing role of phospholipid and protein on cholesterol as revealed by studies of the cholesterol-phospholipid ratio on the one hand, and ultracentrifuge study of lipoprotein complexes on the other.

Ahrens and Kunkel, and several other investigators have emphasized the importance of serum phospholipids as stabilizers of the serum lipid emulsion.[3,4,5,23,24,35,36,37,48,49,50,56,67] It appears from these studies that elevation of serum cholesterol *per se* is of less importance in the pathogenesis of arteriosclerosis than abnormal ratios of cholesterol to phospholipid. In subjects with arteriosclerosis the ratio of cholesterol to phospholipid is significantly decreased. Corroboration of the protective role of agents which solubilize cholesterol, such as phospholipid (lecithin), is afforded by the experimental observation that other solubilizing agents which are not native to the serum, such as the detergent Tween 80, when injected intravenously, retard the development of atherosclerosis in animals on cholesterol feeding, despite very high levels of the serum lipids.[49,69] It is not known precisely in what manner the phospholipid lecithin protects against the deposition of cholesterol in the arterial wall which constitutes the basic lesion of arteriosclerosis. It has been suggested[41] that cholesterol as well as other serum lipids enter the vessel wall by penetration together with protein and phospholipids, and that tissue utilization of hydrophilic colloids such as protein and lecithin which hold the hydrophobic cholesterol in colloidal dispersion might lead to precipitation of cholesterol in the arterial wall. Such precipitation may be more readily effected when the ratio of phospholipid-cholesterol is reduced as appears to be the case in subjects with arteriosclerosis.

Considerable interest has centered recently on Gofman's observations of alterations in serum lipid and lipoprotein molecules as studied in the ultracentrifuge.[38,59] Gofman has found that the transport of cholesterol and other lipids of serum is almost entirely in the form of very large molecular complexes of these lipids with variable amounts of protein. The exact components present in the

blood of a particular individual may be quantitatively described both as to character and concentration by ultracentrifugal flotation of these components in the analytic ultracentrifuge. Four chief classes of molecules have been found in these studies.

A. Species which migrate with Sf values greater than 75 Sf units. These include the chylomicrons and aggregates of much smaller dimensions. The concentration is increased following fat-containing meals and represents part of the alimentary lipemia.

B. Species which migrate with Sf values between 30 to 70 Sf units. This constitutes the major fraction of alimentary lipemia and contains certain cholesterol bearing molecule components.

C. Species which migrate with rates between 10 and 20 Sf units. The molecular weight of these components is in the neighborhood of 3,000,000 and they contain approximately 30 per cent of cholesterol by weight.

D. Species which migrate with Sf rates between 3 to 8 Sf units. These molecules are cholesterol, phospholipid and protein-containing substances.

The species Sf 10 to 20 do not represent any part of the acute alimentary lipemia and are not closely correlated with the total cholesterol serum level, although in general they are low in individuals with very low levels of serum cholesterol and high when hypercholesterolemia of considerable degree is present. These molecules are present with a much higher frequency and at higher concentrations in subjects with known arteriosclerosis and in diseases associated with a predisposition to arteriosclerosis (diabetes, nephrotic syndrome, hypothyroidism, hypertension).[38,59] It is believed by Gofman on the basis of these observations that they are associated in some manner with the development of arteriosclerosis.

It is evident from the foregoing that cholesterol of itself does not constitute the whole story in arteriosclerosis, and that lipid metabolism as a whole must be considered. Further clarification is necessary of the interrelations between serum cholesterol, chylomicronemia, phospholipid-cholesterol ratios, and lipoprotein complexes of Sf 10 to 20 category. It has been established that serum cholesterol levels do not bear any close relationship to chylomicronemia, cholesterol-phospholipid ratios, or lipoprotein complexes of Sf 10 to 20 type. Neither is there any correlation between chylomicrons and Sf 10 to 20 lipoprotein molecules. Gofman[38] has found no correlation between chylomicronemia and the presence of atherosclerosis in humans as studied in the ultracentrifuge.

In view of the uncertain pathogenetic roles of the various lipid fractions and ratios in the serum, the recommendation of specific measures based on effects on these various lipid deviations cannot, at the present time, be considered as of proven or definite value in the control or prophylaxis of arteriosclerosis. Drastic dietary restriction of fats, as already mentioned, reduces the level of serum cholesterol but lesser degrees of fat restriction are without value in this respect. Fat restriction decreases alimentary chylomicronemia,[64] improves the phospholipid-cholesterol ratio,[85] and significantly decreases the concentration of Sf 10 to 20 lipoprotein molecules.[38] Curtailment of fat intake in the diet therefore appears warranted on the basis of its beneficial effect on all of the several indices of disturbed lipid metabolism, which are presently considered to bear on the pathogenesis of arteriosclerosis.

Considerable exploitation has been made of reports of the effects of various lipotropic agents on cholesterol and lipid metabolism.[1,31,42,43,52,57,65,66,81] These lipotropic agents include lecithin, choline, methionine, betaine, inositol, and thyroid hormone. Although these agents are effective in preventing experimental fatty infiltration of the liver, earlier enthusiastic reports of their effects in reducing serum cholesterol and in preventing experimental arteriosclerosis have been greatly tempered by more recent investigations. The effects of these agents in reducing blood cholesterol are relatively slight. They fall far short of accomplishing a marked reduction of blood cholesterol to levels of 150 mg. per cent such as are necessary to confer protection against the development of arteriosclerosis.[40]

The lowering effect of lipotropic factors on blood cholesterol is temporary and serum cholesterol tends to rise after an initial lowering despite continued administration. Recent investigations,[9,24,79] have failed to confirm earlier reports that lipotropic agents inhibit the development of experimental arteriosclerosis. These more recent studies include investigations in the rabbit, the dog, and the chick. In the chick, choline and inositol were actually found to aggravate the development of atherosclerosis on cholesterol feedings.[79] Fur-

ther study is necessary to establish the effect of lipotropic agents on other indices of disturbed lipid metabolism in arteriosclerosis, apart from the total serum cholesterol concentration.

The effect of lipotropic agents is to accomplish the removal of fatty acid esters from cholesterol in the liver, allowing free cholesterol to be excreted in the bile. However, the biliary cholesterol is promptly reabsorbed in the intestines back into the circulation, unless cholesterol absorption is prevented by such measures as extreme fat restriction.[41] It is evident, therefore, that whatever value lipotropic factors may have can be exerted solely as an adjunct to marked dietary restriction of fats.

It is not to be inferred from this extended comment that blood lipids constitute the whole story in the pathogenesis of arteriosclerosis. Arteriosclerosis is, after all, a disease of the arteries and it is here one must look for the pathological-physiological changes which constitute vulnerability to the development of atherosclerosis. That local factors in the arteries are important in the pathogenesis of arteriosclerosis is self-evident from the fact that arteriosclerosis is not an even and diffuse process but exhibits definite zones of predilection for certain areas and vessels.

The artery, no less than other specialized tissues, is an organ with a metabolically active parenchyma (the muscle cells), supporting tissue (fibroblasts and elastic and collagen fibers) and an intercellular medium through which nutrition is brought and waste products are removed. It is the unique arrangement of the circulation through the intercellular medium of the artery which appears in large measure to provide the background for arteriosclerosis.

The same factors which determine the composition and circulation of the intercellular fluid in other tissues of the body operate in controlling fluid movement through the arteries. These include the vascular filtration pressure, composition of the blood, permeability of the endothelial membrane, physical state of the intercellular medium and barriers to fluid flow, venous and lymphatic removal of the intercellular fluid and adjuvant factors aiding movement and removal of components of the intercellular medium, such as gross movement of the part and phagocytic activity. The quantitative effect of these several factors differ greatly, however, in relation to their action in determining the intercellular composition and composition elsewhere in the body. We have reviewed these individual factors with respect to their bearing on the genesis of arteriosclerosis in other communications,[41] and time does not permit us to give consideration to these factors in the present discussion.

There is, however, one important local factor in the vessel wall which is pertinent to the comment we have already made on the interrelationship of various lipid fractions and the role of hydrophilic colloids in preventing precipitation of the hydrophobic cholesterol. Cholesterol enters the arterial wall by penetration together with protein and phospholipid. The distribution of lipids in the arterial wall and in early atheromas is very similar to that in the blood, whereas in a more advanced stage of atheromatosis, there is a greatly increased proportion of cholesterol. Evidently, the hydrophilic colloids which hold the hydrophobic cholesterol in colloidal dispersion are either removed or utilized in the tissues and lead to precipitation of cholesterol in the arterial wall. As we have indicated in a recent communication,[40] enzymes are present in the aortic wall which break down phospholipids, such as acid phosphatase, which is particularly activated when circulation of nutrient tissue fluid through the arterial wall is impaired, resulting in lowered tissue pH. Here we have a clue to the local factor in the precipitation of cholesterol in the arterial wall, which constitutes the actual lesion of arteriosclerosis.

The presence of phosphatase in the arterial wall, described recently by Kirk and Praetorius, as suggested by these investigators, may also have an important bearing on the pathogenesis of arterial calcification, which is such a frequent concomitant of arteriosclerosis. The local breakdown of phosphatides not only leads to precipitation of cholesterol, as we have suggested, but also provides phosphate for the local precipitation of calcium phosphate and development of calcification in the artery.

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Diagnosis of Pheochromocytoma

By Lloyd T. Iseri, M.D., Douglas Chandler, M.D., Gordon B. Myers, M.D., and Albert J. Boyle, M.D.

Detroit, Michigan

ALTHOUGH the incidence of pheochromocytoma found in a series of hypertensive patients is low (0.5 per cent), it nevertheless becomes quite significant when one considers the extremely high incidence of hypertensive diseases, in general. In addition, a certain number of patients with pheochromocytoma are never considered to be hypertensive unless perchance the blood pressure is taken during a paroxysm. The recognition and the ultimate diagnosis of this condition are essential, since definitive treatment offers a reasonable assurance of a cure in an otherwise progressive and eventually fatal disease.

Case Reviews

Case 1 (reported elsewhere[18]).—B. M., an eight-year-old Negro boy, was admitted to City of Detroit Receiving Hospital on October 4, 1950, because of impairment of vision. The mother had noticed unusual episodes of sweating and pulsations over the anterior chest for about one year. There was a loss of weight in spite of an extremely good appetite. About one month prior to admission, the patient began to have headaches, frequency of urination, recurrent abdominal pains and vomiting, and difficulty in school due to impairment of vision. Mild periorbital edema was noted for two weeks. There was no history of hematuria or dysuria. The family history was negative for hypertension.

Physical examination.—The patient was alert, hyperactive, and slightly undernourished. The blood pressure in the arms was 210/170 mm. Hg and in the legs, 260/200 mm. Hg. The eyelids were slightly puffy and the fundi showed Grade 4 hypertensive retinopathy with hemorrhages, exudates, arteriolar spasm, and papilledema. The heart size was normal, but the apical impulse was forceful, and soft systolic murmurs were heard over the pulmonic and apical areas. The lungs were normal. A small mass, 4 cm. in diameter, was palpable deep in the left upper quadrant of the abdomen near the midline.

Laboratory examination.—The blood count was normal. The urine showed a trace of albumin. Fasting blood sugar was 80 mg. per cent. Basal metabolic rate was plus 31 per cent. The multiple lead electrocardiograms showed evidence of left ventricular ischemia. The intravenous and retrograde pyelogram showed lateral displacement of the left kidney (Fig. 1).



Fig. 1. Retrograde pyelogram of Case 1 (B. M.), showing lateral displacement of left kidney. (Reprinted from American Heart Journal, 42:129, 1951, with permission of C. V. Mosby and Co.)

Clinical course and observations.—Diagnosis of pheochromocytoma with a persistent hypertension was established by a positive Benzodioxane and Regitine test (Fig. 2, *A* and *B*). Massage of the tumor mass (Fig. 2, *C*) during a partial adrenergic blockade (ten minutes after 2.5 mg. of Regitine intramuscularly, or three to six hours after 25 mg. orally) produced an initial fall and then a rise in blood pressure. Under complete adrenergic blockade (one-half hour after 25 mg. orally), no pressor response was elicited with massage of the tumor.

On a maintenance dose of oral Regitine, 25 mg. every three hours, the blood pressure fell and stabilized around 165/125 mm. Hg, the hemorrhages and exudates in the fundi began to resolve, papilledema disappeared, and the arterioles became less spastic than before. Abdominal pains and vomiting, which were present during the first two days after admission, never recurred. The electrocardiogram became normal. The patient was operated upon by Dr. J. W. Derr on the twenty-ninth day under protective adrenergic blockade, using Regitine, 25 mg. orally and 3 mg. intramuscularly (Fig. 3). A tumor, 3.7 by 3.5 cm., was found near the hilus of the left kidney, closely adherent to the renal vein. The diffi-

From the Departments of Medicine and Chemistry, Wayne University, and the Department of Medicine, City of Detroit Receiving Hospital.

Supported by grants from the National Heart Institute and the Michigan Heart Association.

culty imposed by the anatomical relationships made it necessary for considerable handling of the tumor and consequently about the time the preoperative medication was losing its effect, the blood pressure again rose to high levels. This was readily combated by another intravenous injection of 0.5 mg. Regitine. Following the removal of the tumor, the blood pressure fell to 90/65 mm. Hg and a continuous infusion of nor-epinephrine at

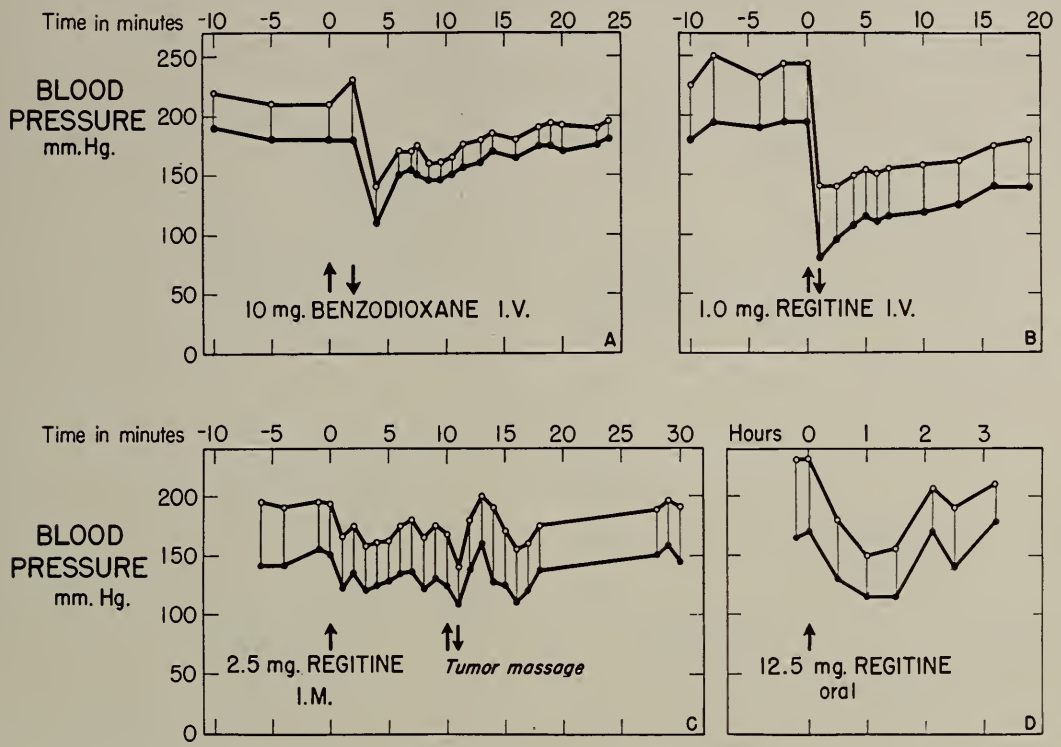


Fig. 2. Diagnostic tests performed in Case 1. (Reprinted from *American Heart Journal*, 42:129, 1951, with permission of C. V. Mosby and Co.)

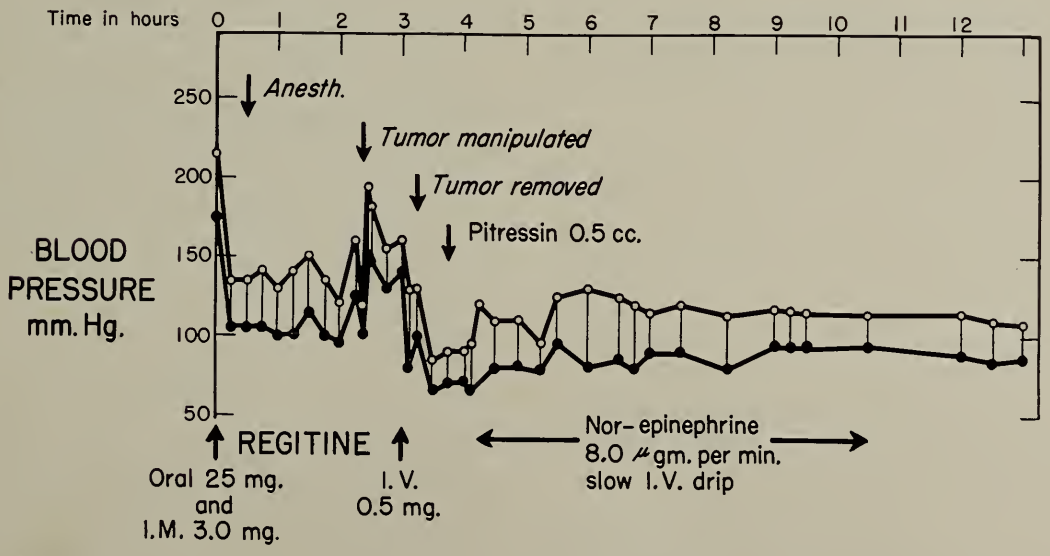


Fig. 3. Effect of Regitine and Nor-epinephrine during surgery in Case 1. (B. M.). (Reprinted from *American Heart Journal*, with permission of C. V. Mosby and Co.)

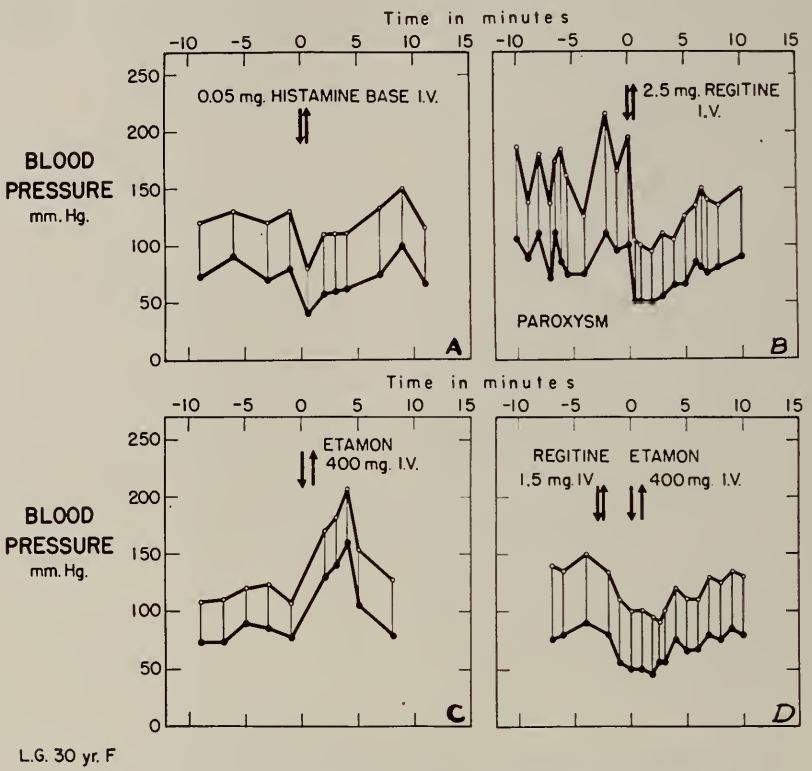
8.0 micrograms per minute was necessary for six hours to maintain the blood pressure at 120/95 mm. Hg.

Pathologic studies.—The tumor weighed 39.3 gm. and was well encapsulated except at its attachment to a portion of the renal vein. Microscopically the cells were arranged in nests and separated by fibrous tissue and rich capillary network. Lumens of two thick-walled veins were invaded by neoplastic cells, forcing a tentative diagnosis of malignant pheochromocytoma.

The tumor contained pressor substances equivalent to 0.52 mg. of epinephrine per gram of tissue. Bioassay indicated the presence of a significant quantity of epinephrine in the extract, but the chemical determination indicated the presence of 77 per cent nor-epinephrine and only 23 per cent epinephrine.

Four months later an atrophic, non-functioning left kidney was removed. Recently vague symptoms of restlessness and nervousness have reappeared, but the histamine test has remained negative and the blood pressure has been well within the normal range.

Case 2.—L. G., a thirty-year-old Mexican woman, was first seen in the out-patient department approximately one year prior to admission, complaining of burning of the skin, oligomenorrhea, nervousness and dizziness. The blood pressure recorded at that time was 150/90. The skin was noted to be moist. Other findings were negative. The symptoms were considered to be functional, since numerous psychic disturbances were uncovered. The patient was then lost sight of until a year later, when she again presented herself at the out-patient department with additional complaints of 10-pound weight loss, recent headaches, excessive perspiration, and shortness of breath with exertion. The patient was admitted May 25, 1951, for study.



PHEOCHROMOCYTOMA WITH PAROXYSMAL HYPERTENSION HISTAMINE, ETAMON, AND REGITINE TESTS

Fig. 4. Diagnostic tests performed on Case 2 (L. G.).

Physical examination.—The patient was slightly underweight and undernourished, resting quietly, but perspiring profusely. The blood pressure was 170/115 mm. Hg, temperature 98° F., pulse 84, and respirations 14 per minute. The retinal fundi showed a gr. i arteriolar spasm. A small, 1 cm. nodule was palpable in the left lobe of the thyroid. The rest of the examination was normal except for a distinctly palpable right kidney.

Laboratory examination.—The blood count was normal. The urine showed a trace of albumin, but otherwise it was normal. The basal metabolic rate was repeatedly between plus 90 and 92 per cent, even under heavy sodium amytal sedation. The glucose tolerance test showed a fasting blood sugar level of 96 mg. per cent, one-half hour after glucose 224 mg. per cent, one and one-half hours 292 mg. per cent, two and one-half hours 200 mg. per cent, and three and one-half hours 72 mg. per cent. Protein bound iodine was 10 micrograms per cent. Pyelographic studies revealed a slight downward displacement of the right kidney.

Clinical course and observations.—During the period prior to surgery, the blood pressure was noted to fluctu-

ate between 220/120 and 118/70 mm. Hg. The headaches became less marked, but the sweating persisted and the patient continued to lose weight. A therapeutic trial of Lugol's solution lowered the basal metabolic rate to plus 70 per cent, but since this occurred within three days and since further fall did not occur, it was felt that thyrotoxicosis was not responsible for the elevated metabolic rate.

Injection of histamine (Fig. 4, *A*) failed to produce a pressor response and for the time being the diagnosis of pheochromocytoma was considered to be unlikely; however, injection of etamon produced a distinct pressor response (Fig. 4, *C*). The fact that this was blocked by a previous injection of Regitine (Fig. 4, *D*) indicated that the pressor response was due to epinephrine or epinephrine-like substances. During a paroxysm induced by painful and unsuccessful arterial punctures, the widely fluctuating blood pressure and the diaphoresis were immediately controlled by an intravenous injection of 2.5 mg. Regitine (Fig. 4, *B*). Massage of the the right kidney produced a significant rise in blood pressure.

The patient was extremely sensitive to a single 50 mg. dose of Regitine by mouth and consequently a very small dose of 5 mg. four times a day was administered. There was no distinct effect of this homeopathic treatment except that extreme blood pressure rises did not occur and that the degree of perspiration was noticeably reduced.

The patient was operated upon by Dr. O. G. Fais, who found a well encapsulated right adrenal tumor, approximately 3.5 cm. in diameter. Surgery was attended by wide fluctuations in blood pressure, but the patient tolerated the procedure relatively well. A continuous infusion of nor-epinephrine at 8 micrograms per minute was given postoperatively to stabilize the blood pressure.

Pathologic studies.—The tumor weighed 34 grams and was well encapsulated through its entire circumference. The cells were polygonal and arranged in islands separated by a fine fibrous network.

Pressor amines were equivalent to 80 micrograms of epinephrine per gram of tissue. Chemical fractionation for nor-epinephrine and epinephrine was not carried out.

Follow-up studies revealed stabilization of blood pressure at 120/80 mm. Hg, basal metabolic rate of plus 14 per cent, and a negative etamon test. Sweating has been replaced by feeling of coldness. Body weight has increased by thirteen pounds within two months.

Discussion

Recognition of the possibility of pheochromocytoma in any given case is the most important factor in the detection of this disease, for once the suspicion is aroused, the diagnosis can usually be established. The clinical features, however, are manifold and extremely variable, making it impossible to characterize the symptom complex. Much of the difficulty can be resolved by understanding the physiological potentialities and the variable influence of epinephrine and nor-epinephrine, which are secreted in different proportions by these tumors.[10,18]

SYMPTOMS, SIGNS AND LABORATORY FINDINGS IN PHEOCHROMOCYTOMA

Symptoms

- Headaches
- Sweating and color changes in skin (50%)
- Palpitation, precordial pains, angina
- Shortness of breath, pulmonary edema (50%)
- Diminution of vision, dizziness
- Tremulousness, nervousness, anxiety
- Nausea, vomiting, epigastric pains
- Weakness and malaise
- History of paroxysmal symptoms (75%)

Signs

- Elevation of blood pressure (persistent 75%—paroxysmal 25%)
- Tachycardia (or bradycardia in 20%)
- Fever (70%)
- Retinal angiospasm. Malignant hypertensive retinopathy (8%)
- Palpable mass, liver or kidney (50%)

Laboratory findings

- Abnormal EKG
- Elevated BMR (60%)
- Hyperglycemia or abnormal glucose tolerance (60%)
- Abnormal pyelogram (66%)

Contrary to the general belief, epinephrine (in the usual doses) causes an over-all vasodilatation, the pressor effect being brought about by the tremendous increase in the cardiac output.[11] Epinephrine, therefore, elevates the systolic blood pressure without greatly affecting the diastolic pressure and it also increases the cardiac rate. Although the over-all response to epinephrine is vasodilatation, the cutaneous vessels undergo a marked vasoconstriction, accounting for the visible vasomotor manifestations of pallor followed by reactive hyperemia. In addition, epinephrine, in doses much less than that required for pressor effect, mobilizes liver and muscle glycogen, producing hyperglycemia and decreased glucose tolerance. In comparable doses, it also increases oxygen utilization, leading to increased heat production and increased basal metabolic rate. Sweating occurs reflexly in response to the increased heat production.[25] Central nervous system stimulation also follows epinephrine injection.

In contrast, nor-epinephrine produces a generalized vasoconstriction with no effect or even with slight decrement in cardiac output.[11] The diastolic as well as the systolic pressure, therefore, is consistently increased. Nor-epinephrine occasionally produces a bradycardia indirectly through

TABLE I. CLINICAL AND PHYSIOLOGICAL CLASSIFICATION OF PHEOCHROMOCYTOMA

Major Group	Minor Group	Pathological Physiological Basis
I. Paroxysmal hypertension 25%	A. No metabolic disturbance during or between paroxysms	No pressor substances between paroxysms Nor-epinephrine during paroxysms
	B. Metabolic disturbances only during paroxysm	No pressor substances between paroxysms Epinephrine or mixture of epinephrine and nor-epinephrine during paroxysms
	C. Metabolic disturbanees during and between paroxysms	Epinephrine between paroxysms and Additional epinephrine and/or nor-epinephrine during paroxysms
II. Sustained hypertension 75%	A. No associated metabolie disturbances	Continuous nor-epinephrine secretion (Pressor substances may not be detectable[3] in "secondary hypertension")
	B. Associated metabolic disturbances	Continuous secretion of epinephrine with or without nor-epinephrine (or large amount of nor-epinephrine alone)

the cardioinhibitory reflex. Nor-epinephrine in physiologic doses has very little effect on metabolism, failing to produce hyperglycemia or hypermetabolism. It has no central nervous system stimulating properties. Recently it has been shown that pulmonary capillary pressure is increased by nor-epinephrine,[7] but not by epinephrine.[27] This may account partly for the frequent observation of pulmonary edema usually attributed to acute left ventricular failure.

Variability in the clinical picture thus can be explained theoretically by the constancy or the intermittency in the secretion as well as the relative secretions of these two pressor substances. Table I correlates the different clinical syndromes seen in pheochromocytoma with the secretions of epinephrine and/or nor-epinephrine. In general, the syndromes can be divided into two major groups, those with normotension but with paroxysmal hypertension (Group I), and those with persistent hypertension (Group II). Minor variations occur with respect to hypermetabolism and hyperglycemia. Paroxysmal release of nor-epinephrine alone probably accounts for the paroxysmal hypertension with no metabolic disturbances (Group I, *A*), whereas paroxysmal release of epinephrine with or without nor-epinephrine explains the accompanying metabolic changes (I, *B*).* Continuous secretion of subpressor quantity of epinephrine is no doubt, responsible for the persistent metabolic disturbances between attacks (I, *C*). Case 2 in the present report falls in this group.

Sustained hypertension without hypermetabolism and hyperglycemia (Group II, *A*) may result from continuous secretion of nor-epinephrine. There is considerable evidence, however, that a certain percentage of patients in this group actually have no increase in circulating pressor amines. Goldenberg[10] considers these patients as suffering from "secondary hypertension." Whether vascular changes due to prolonged vasoconstriction or whether hypercorticism[3] is responsible for the continued hypertension is not known. When metabolic disturbances are associated with sustained hypertension, as in Group II, *B*, the difficulty is most likely due to a continuous secretion of epinephrine with or without nor-epinephrine, although it is known that a large quantity of nor-epinephrine alone is capable of producing certain metabolic disturbances. Case 1, with an increased basal metabolic rate and persistent hypertension, characterizes this last group.

The symptoms, signs, and positive laboratory tests usually found in pheochromocytoma are listed herewith. Long-term follow-up of these cases before the establishment of the diagnosis indicates that at the onset of the illness, the various symptoms occur in paroxysms.[23] In fact, a past or present history of paroxysmal episodes can be obtained in approximately 75 per cent of the cases.[25] There is a tendency, in the natural course of the disease, for the paroxysms to become more and more frequent and often less and less alarming in nature.[13] Eventually, a certain percentage of the cases develop a sustained hypertension with almost continuous but very minimal symptoms. In about 25 per cent of the cases, there is no history of a paroxysmal origin and together with the group of patients who eventually develop a sustained hypertension, they closely resemble the classical variety of well-established essential vascular hypertension. Necrotic degeneration of the vascular system may occur in a small percentage of cases.

Among the symptoms listed, recurrent headache is probably the most common complaint, but this may not be present at the onset of the illness, as was found in Cases 1 and 2. It is usually associated with one or the other of the symptoms listed

*Large quantities of nor-epinephrine alone may also produce metabolic abnormalities.

in the table. Smithwick[25] emphasizes the importance of abnormal sweating, finding this in nine out of ten cases. Fifty-two per cent of the patients reported in the literature mentioned sweating as one of the symptoms, but probably more patients will complain about this if specifically questioned. Sweating commonly follows a paroxysm, but may occur in patients with no history of paroxysms. Case 2 in the present report complained bitterly of excessive perspiration, which often occurred without any preceding paroxysms. Sweating also occurred in Case 1. Palpitation and precordial pains are frequent complaints and at times true angina from coronary insufficiency with electrocardiographic changes may occur.

Probably the most alarming and the gravest of symptoms are the recurrent attacks of pulmonary edema experienced by approximately one-half of the patients with pheochromocytoma.[16] Acute left ventricular failure from increased peripheral resistance and myocardial ischemia account for the paroxysmal development of pulmonary edema. The fact that nor-epinephrine indirectly increases pulmonary capillary pressure without apparent left ventricular failure[7] may also explain the pathogenesis of this alarming symptom.

Diminution of vision, as in Case 1, results from hypertensive retinopathy. Tremulousness, nervousness, and anxiety are usually present in most cases because of the central nervous system effect of epinephrine. These symptoms were responsible for the mistaken diagnosis of psychoneurosis in Case 2. Nausea, vomiting and epigastric pains are not readily explainable, but do occur frequently in pheochromocytoma (Case 1).

It would seem that detection of an elevated blood pressure at one time or another is a priori necessary for the diagnosis of pheochromocytoma; however, it is possible that metabolic disturbances may precede the development of paroxysmal or sustained hypertension for some time.[5] The classical type of paroxysmal hypertension is actually less common (25 per cent) than the more subtle type of persistent hypertension (75 per cent).[8] In Calkins' series of twelve cases, however, percentages were reversed.[2] Usually during a paroxysm there is a tachycardia, but occasionally there may be a bradycardia (20 per cent) similar to that observed when nor-epinephrine is injected. A low-grade fever was unexpectedly found in as much as 70 per cent of the cases.[25] This can be explained by the increased production and decreased loss of heat brought about by cutaneous vasoconstriction. Neither of the two present cases, however, had any fever. Either the tumor itself or the displaced kidney or liver can be palpated in approximately 50 per cent of the cases.[26]

Among the laboratory tests that may be abnormal are the electrocardiogram, basal metabolic rate, fasting blood sugar, and glucose tolerance tests. The urine may show albuminuria and cells in those resembling malignant hypertension or it may show varying degrees of glycosuria. Since the tumor is usually small (average 3.0 cm. in diameter) when symptoms become prominent, the pyelographic studies may not reveal any abnormalities. Surprisingly, however, abnormal pyelographic pattern is observed in as much as 66 per cent of the cases.[26] Case 1 had a distinctly abnormal pyelographic pattern, but Case 2 had only a questionably abnormal pattern.

The ultimate clinical diagnosis depends greatly upon the pharmacological tests designed (1) to provoke a discharge or potentiate the action of pressor substances, or (2) to block the action of these substances. Much of the indication, as well as the resulting success or failure of these tests, depends upon the physiological activity of the tumor. Provocative tests, using histamine or mecholyl, should prove helpful between attacks in patients with a paroxysmal history (Group I). Potentiating activity of tetraethyl ammonium (etamon test) may uncover subpressor quantities of circulating epinephrine (Group I, *C*), or it may exaggerate the pressor factors in Group II. Adrenergic blockade by Benzodioxane or Regitine is most adaptable during paroxysms or in patients with sustained hypertension (Group II).

Histamine Test.—This test, first described by Roth and Kvale,[22] has proved to be extremely valuable in the detection of pheochromocytoma. The test should be performed on patients who are normotensive or who have only a moderate elevation of blood pressure. 0.025 mg. of histamine base is injected intravenously and the blood pressure followed every minute for five minutes before and ten minutes after the injection. A positive response is indicated by a substantial rise in blood pressure (100 mm. Hg) over the control levels. Caution, however, must be exercised in the interpretation of these tests, for a number of false positive tests have been reported.[2] A cold pressor test should always

be performed, since hyperreactors to this test will also react often with an equally high pressor response to histamine. Attempts to differentiate the neurogenic from the humoral (epinephrine and/or nor-epinephrine) factors in these two tests by the use of sodium amytal and Regitine failed in one recent case observed in this hospital. This patient had a positive histamine test, which could be blocked by Regitine, and a positive cold pressor test, which could be blocked by sodium amytal sedation. Exploration of the abdomen revealed only a small adrenal cortical tumor, but no pheochromocytoma.

False negative histamine test has been cited by others[2,23] and was observed in Case 2. No good explanation can be given for these false negative tests, but in the present case it may have been due to the fact that the tumor contained comparatively very little pressor substance per gram of tissue.

Mecholyl Test.[15]—Subcutaneous injection of 25 mg. of mecholyl supposedly stimulates the adrenal tumor directly, provoking a discharge of pressor amines. The test must be preceded by an injection of 1 mg. atropine sulfate to prevent the annoying gastrointestinal as well as the dangerous cardio-inhibitory reactions.

Etamon Test.[19]—This is carried out in a similar manner to the histamine test. After testing for sensitivity with 50 mg., 200 mg. of tetraethyl ammonium chloride is injected intravenously over one minute duration. A significant rise in blood pressure suggests the presence of a pheochromocytoma.

Although there is a possibility that etamon will stimulate the actual secretion of pressor substances from the adrenal gland or from the tumor itself,[8] the rise in blood pressure produced by etamon in proven cases of pheochromocytoma is probably due to the potentiation of circulating amines by ganglionic blockade of compensatory depressor fibers.[20,21] Those cases with a negative histamine but a positive etamon test (Case 2 and case mentioned by Aranow[1]) undoubtedly have significant but subpressor quantities of epinephrine constantly circulating in the blood stream. The persistent hypermetabolism in Case 2 conforms to this explanation.

False negative etamon test would thus be anticipated in those patients with no circulating amines during the interval between paroxysms (Groups I, *A* and I, *B*). False positive tests will probably be uncovered, since pressor response to etamon occurs in a significant number of patients with hypertensive vascular disease.[23]

A physiological or mechanical stimulation of the tumor substance may occasionally give invaluable information, as illustrated in both of our patients. Under partial adrenergic blocking, which lowered the blood pressure slightly in Case 1, direct massage of the tumor produced a blood pressure rise. Greater significance of this observation was obtained during a complete adrenergic blockade when massage of the tumor produced no pressure rise. In Case 2, massage of the right kidney produced a significant rise in blood pressure, not only helping to diagnose the condition, but also localizing the tumor to the right side.

Provocative or potentiating tests, which might induce a paroxysm, are not without danger and should be used with extreme caution in patients with a weakened cardiovascular system or in patients who give a history of pulmonary edema.

Benzodioxane Test.[12]—This test has been the most widely used diagnostic procedure for patients with persistent hypertension. Ten milligrams per square meter of body surface (15 to 20 mg. usual dose), injected intravenously over a two-minute period, produce a fall in blood pressure when the test is positive. The degree and duration of fall should be graphically charted and the millimeter-minute fall should be counted. Over 300 mm.-minute fall should be obtained before any significance can be attached to the test. Case 1 had a systolic fall of 672 mm.-minute and a diastolic fall of 474 mm.-minute, comparable to the degree of fall observed by Goldenberg in his original cases.[12]

False negative tests[9] occur in the so-called "secondary hypertension" due to pheochromocytoma, in which the pressor amines are apparently not in actual circulation (variation of Group II, *A*). False positive tests have occurred in uremic patients[6] and we have seen a suggestive but false positive test in a patient with a colloid cyst of the third ventricle.

In addition to these limitations, Benzodioxane has caused alarming hypertensive encephalopathic reactions in essential vascular hypertension,[4] so that routine use of this drug for testing must be conducted with caution.

Regitine Test.— Recently another adrenergic blocking test has been introduced.[14,18] The test is performed by injecting intravenously 1.5 to 2.0 mg. (1.0 mg. per sq. M.) of Regitine and following the blood pressure every minute for ten minutes before and after the injection.[18] A significant fall in blood pressure, similar to that obtained in the Benzodioxane test, signifies a positive reaction. Grimson[6,14] has used larger amounts (.08 to .33 mg. per kg.) intravenously, but the development of tachycardia may limit the use of these larger doses.

Case 1 also responded with a significant fall in blood pressure to 2.5 mg. (2.5 mg. per sq. M.) of Regitine injected intramuscularly. The fall was not as precipitous or as marked, but was more prolonged. Use of 5 mg. intramuscularly, as recommended by Grimson, may prove to be the most practical method for a routine test, since in patients with essential hypertension no side reaction has been observed.[6,17]

So far, with 5 mg. of Regitine intramuscularly, a false positive test has not been obtained, but with 10 mg. intramuscularly, given to hypertensive uremic patients, two false positive tests have been observed.[6] Intravenous injection of 0.16 mg. per kg. has produced a fall in blood pressure in a uremic patient without pheochromocytoma, but the analysis of the blood indicated a high content of pressor amines.[6]

Both Benzodioxane and Regitine may be used to block a provocative or a potentiating test. These drugs can be given about two minutes before attempting to provoke a reaction. The specificity of the etamon test in Case 2 was greatly increased by the ability of Regitine to nullify a pressor response to tetraethyl ammonium chloride. Blocking of the pressor response to massage of the tumor in Case 1 was obtained with complete adrenergic blockade, using Regitine, but not with incomplete blockade.

Summary and Conclusions

Two cases, proven to have a pheochromocytoma, have been presented. Clinical symptoms, signs and laboratory tests have been reviewed and a physiological classification of the various symptom complexes by which this tumor may manifest itself has been presented. Ultimate diagnosis by pharmacological and physiological tests is usually successful, but the occurrence of false positive and false negative tests should be kept in mind.

In patients with normal or mild hypertension between attacks of paroxysm, the provocative or potentiating test, using histamine and etamon, should be tried. In patients during paroxysm or with persistently elevated blood pressure, Regitine and Benzodioxane tests are recommended. Screening of patients with essential vascular hypertension with 5 mg. of Regitine intramuscularly may prove to be the most practical form for routine use, although intravenous Regitine test may be necessary in suspected cases. Blocking of provocative or potentiating tests with Regitine may also give additional information necessary toward the establishment of the final diagnosis.

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Angiocardiographic Observations in Some Correctible Types of Congenital Cardiovascular Disease

By M. M. Figley, M.D., A. M. Stern, M.D., J. L. Wilson, M.D., and F. J. Hodges, M.D.

Ann Arbor, Michigan

RADIOGRAPHIC visualization of the interior of the heart and great vessels has been practical since 1941 when Robb and Steinberg[14] described a method which today, without significant modification, is widely used in many medical centers. Since certain cardiovascular anomalies have become surgically correctible, this examination has assumed increasing importance in preoperative diagnosis and appraisal. In this paper, the angiocardiographic features of these correctible lesions will be described and an attempt will be made to assess the usefulness of the procedure.

In the past four years, some 450 cases of congenital heart disease have been seen at the University of Michigan, and 122 of these have been studied by angiocardiography. While this experience is not as broad as is available elsewhere, still it seems sufficient to show, in a general way, the most advantageous uses of the examination. Many of these patients have had cardiac catherization; some have had operative verification, and a minority autopsy verification of their lesions, so that in all but a few, there is good reason to believe the anatomic defects are accurately known. As is obvious from the figures above, not all the patients have been considered suitable candidates for angiocardiography.

The method itself is quite simple and requires rapid serial filming of the thorax as blood containing radiopaque material passes through the heart and vessels. It is necessary to make a very rapid intravenous injection of a large volume of safe, water soluble, contrast material. Preliminary circulation time tests are not helpful in predicting the optimum exposure time for the visualization of various structures because of individual differences in injection speed, heart rate, and course of blood flow. To overcome these variabilities, a large number of films exposed as rapidly as two per second is considered necessary if significant features are not to be missed. For this purpose, a device has been constructed in the laboratory of the X-Ray Department of the University of Michigan. This provides automatic direct roentgen exposure of 11 by 11 inch frames on a long roll of film at rates of 1.3, 2, and 4 films a second to a total of 30 films. Details of construction and operation are described elsewhere.[19]

Technique

Before the angiocardiogram is performed, sensitivity to iodine is searched for with Lugol's solution given orally the day before the procedure. A preliminary intravenous dose (0.5 to 1 cc. of the specific contrast material used) is given twenty minutes before filming. Prophylactic penicillin and an antihistamine are also given prior to the study. Under local anesthetic and morphine sedation, as large a cannula as possible is tied in an antecubital vein to prevent extravasation and to permit sufficiently rapid injection. The injection time must not exceed two seconds. The patient is then positioned for filming. The examination may be carried out in either horizontal or vertical position, depending on the patient's age and co-operation. After the position and exposure are checked radiographically, the injection is forcibly made, if there had been no response to the previous test dose. Diodrast 70 per cent or NeoIopax 75 per cent are used in dosage of 0.5 cc/lb up to a maximum of 50 cc. Adults are instructed to inhale with the injection, but in infants and children respiration cannot be controlled. Filming begins immediately before injection, usually at the rate of two per second, and continues for ten to twelve seconds. Ordinarily, one projection suffices, but another may be obtained later if sufficient information is not obtained from the initial study.

A great variety of anomalies occur. Every structure of the heart or vessels has been found to have some more or less significant deviation from the normal. These anomalies may be single or in combination resulting in an almost uncountable total of variations. The commonest ones can now be recognized quite accurately clinically, and very accurately if all laboratory procedures including cardiac catherization and angiocardiography are

From the Department of Roentgenology and the Department of Pediatrics and Communicable Diseases, University of Michigan Hospital, Ann Arbor, Michigan. Dr. Stern is the Michigan Heart Association Research Instructor in Pediatrics.

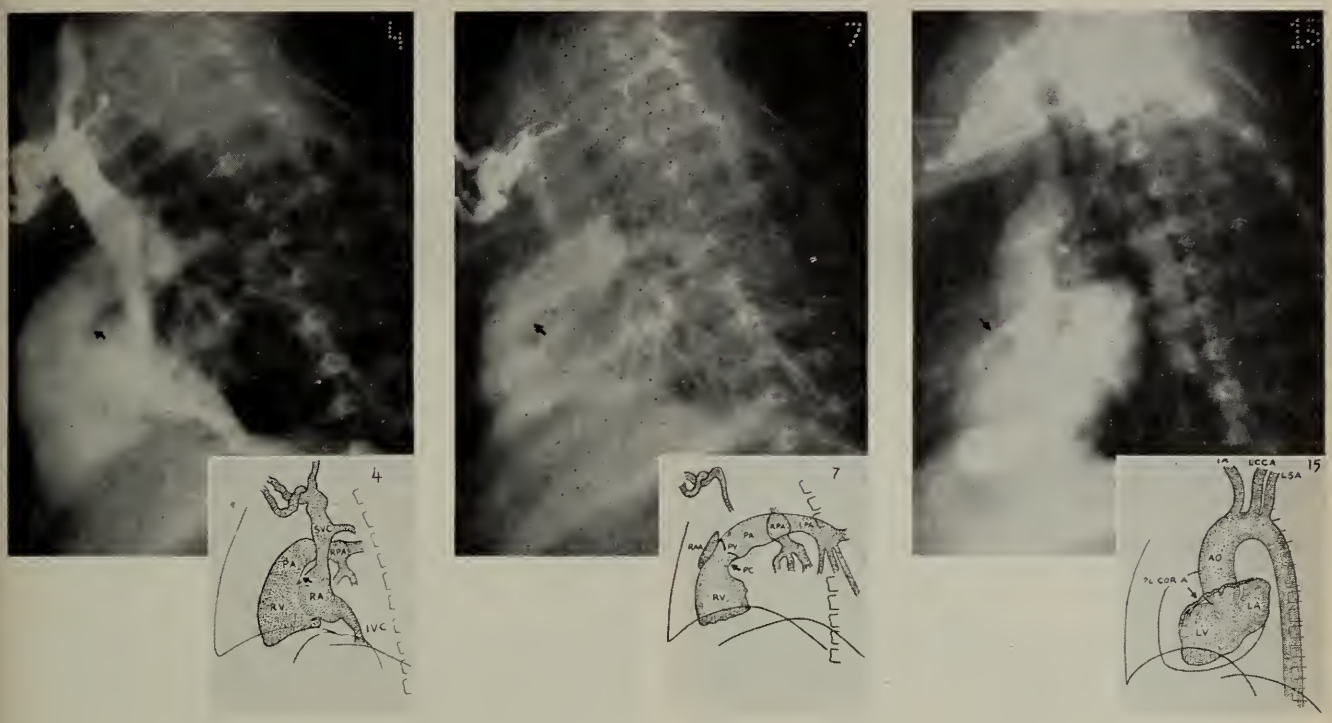


Fig. 1. Normal infant heart, left anterior oblique, four films per second. SVC superior vena cava; IVC inferior vena cava; RA right auricle; RAA right auricular appendange; RV right ventricle; PC pulmonary conus (outflow tract right ventricle): PV pulmonary valve; PA undivided pulmonary artery; RPA right pulmonary artery; LPA left pulmonary artery; LA left auricle; LV left ventricle; L. cor. A left coronary artery; AO aorta; IA innominate artery; LCCA left common carotid artery; LSA left subclavian artery. Normal contraction of right ventricular outflow tract (arrows, Films 4 and 7).

applied. Fortunately, present surgical corrective measures are available to a large group of congenital cardiac patients. This paper concerns itself with: coarctation of the aorta, patent ductus arteriosus, tetralogy of Fallot, pulmonary valvular stenosis with intact ventricular septum, tricuspid atresia with underdeveloped right ventricle.

For reference, a normal angiocardiogram in a two-year-old child is shown in Figure 1. This has been made in a steep, right, posterior oblique projection at the rate of four films per second. Films are numbered sequentially in the upper right corner from number 1, which is the first to show contrast in the superior vena cava. In this case, Films 4 and 7 were exposed ¾ and 1½ seconds, respectively, after the vena cava first filled. The other films in this paper were exposed in similar projection at half this speed so that there is ½ second interval between films. Film 4 of this example shows prompt fill of the right cardiac chambers from the still opaque vena cava, but contrast has not yet reached the smaller pulmonary vessels in full concentration. The structures of the left side of the heart are notably non-opacified at this time. Slight reflux into the inferior vena cava is seen

TABLE I. NORMAL RANGES OF ANGIOCARDIOGRAPHIC OPACIFICATION TIME*

(In seconds after initial fill superior vena cava)

	2 Mo.-2.5 Yrs. (4 cases)		11-63 Yrs. (24 cases)	
	Initial fill	Last fill	Initial fill	Last fill
Superior Vena Cava	0	.5-1	0	.5- 3
Right Ventricle	.5	1 -2	0 -1.5	2.5-6.5
Pulmonary Arteries	.5	1 -2.5	0 -3	2.5- 8
Left Heart Chambers	1.5-2	3.5-5	3 -7	6.5-12
Aorta	2 -2.5	4 -5.5	3.5-7.5	7 -13.5

*Extreme Values Throughout.

coming from the well-demarcated right auricle. The right ventricle is seen in diastole with its outflow portion well shown. On Film 7, ¾ seconds later, the pulmonary arteries are more densely opaque. Vena cava fill has ceased, and the right auricle is empty. The outflow portion of the right ventricle has narrowed in partial systole. Two seconds later, on Film 15, the left cardiac chambers, the outflow tract of the left ventricle, the aorta, and great vessels are clearly seen, whereas the right chambers and pulmonary arteries are free of contrast material. Any fill of these latter chambers at this time is not normal. Although the coronary

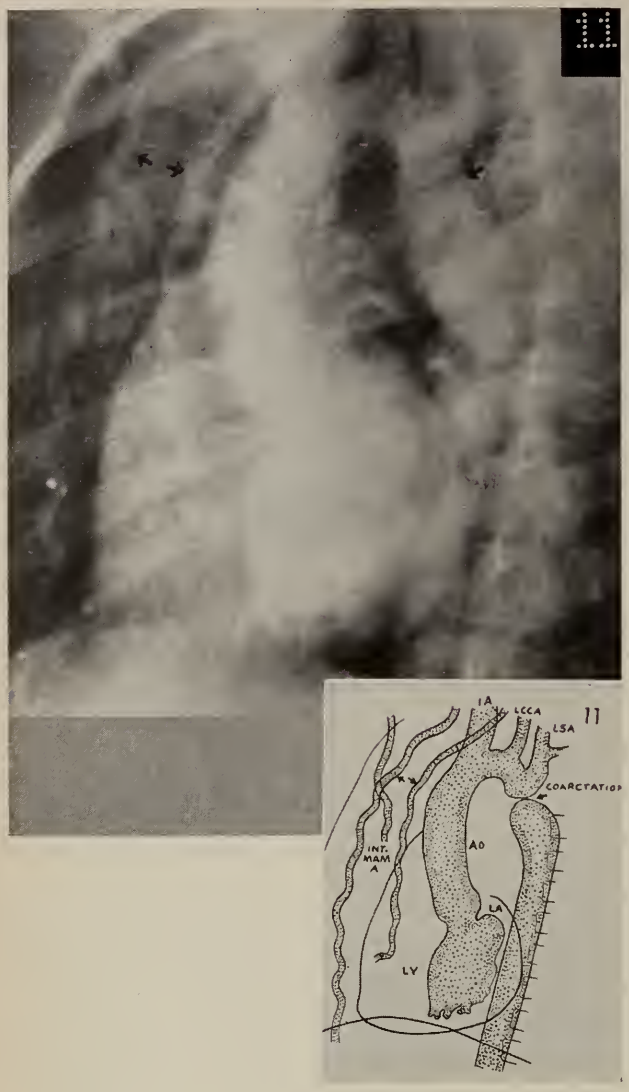


Fig. 2. Coarctation of aorta, left anterior oblique. Note coarctation (arrow), large left subclavian artery, large internal mammary arteries (arrows). Surgical confirmation.

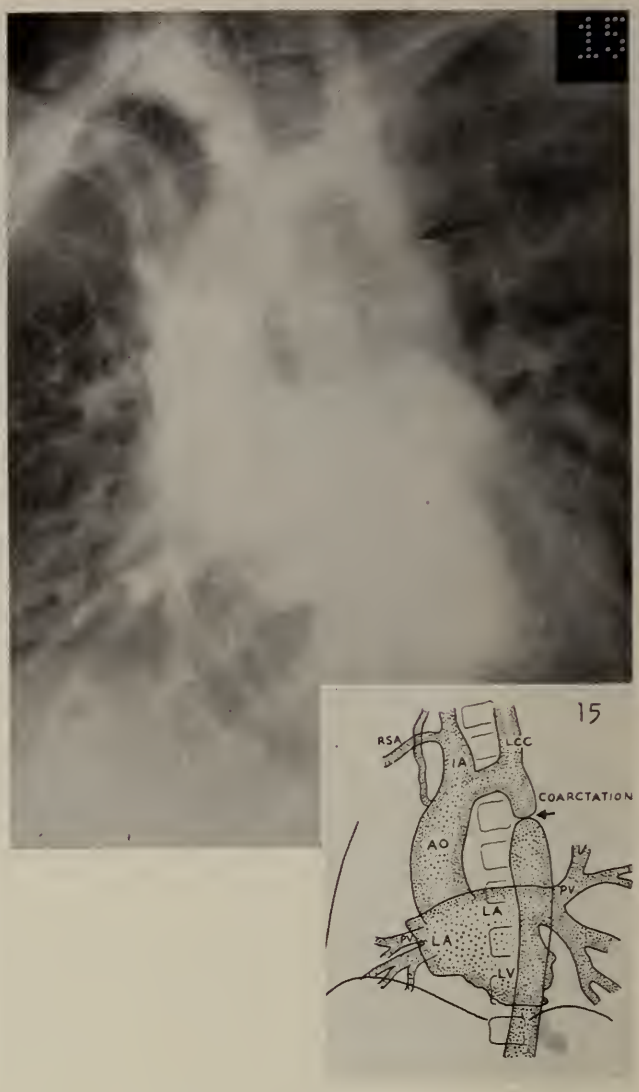


Fig. 3. Coarctation of aorta including original of left subclavian artery, left anterior oblique. Note coarctation (arrow), non-visualization of left subclavian artery. Surgical confirmation.

arteries are not usually seen, the branches of the left coronary artery are shown in this instance.

The general range of opacification time for the various structures is shown in Table I.

Coarctation of the Aorta

This lesion is readily diagnosed clinically if the blood pressure in both the arms and legs is carefully examined. Usually, angiocardiographic confirmation is unnecessary. However, in this hospital, the examination is desired in all patients for whom excision of the coarctation is considered, so as to provide the surgeons with as much information as possible about the exact pathologic anatomy before thoracotomy.

Generally, the angiocardiogram shows the coarctation sharply localized and immediately distal to the origin of the subclavian artery (Fig. 2). This artery and the internal mammaries are regularly enlarged. The ascending aorta is sometimes quite dilated. A forward buckling of the aorta at the site of stricture is usually present, as is some poststenotic dilatation. The size of the small orifice is not seen. There is generally delayed fill of the distal aorta which, however, remains filled unduly long as collaterals slowly bleed contrast material into it.

Frequently, surgically significant variations are encountered. Sometimes, the coarctation may be very near the left subclavian artery implicating

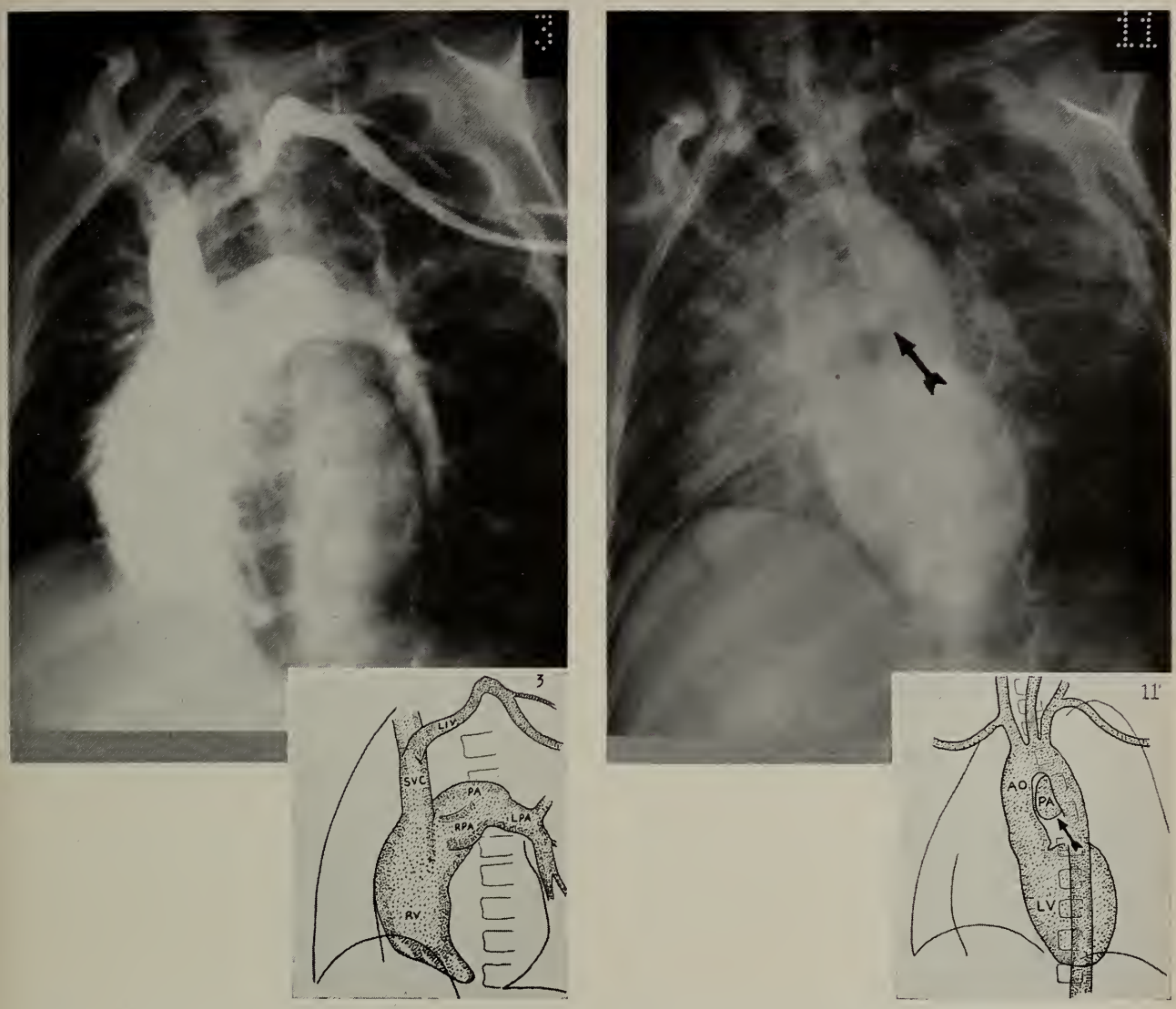


Fig. 4. Patent ductus arteriosus, left anterior oblique, two films per second. Note large pulmonary artery, local aortic bulge, refill of pulmonary artery (arrow, Film 11). Surgical confirmation.

undesirable sacrifice of this artery with its disturbing effect on the collateral circulation. The coarctation may actually include the origin of the left subclavian artery as seen in Figure 3. Sometimes the coarctation is rather long and will not permit excision with primary end-to-end anastamosis. An arterial graft must be inserted in such a case.[9] To assist the surgeon, assessment of the collateral circulation and the size of the great vessels is valuable. We have seen one case in which the collateral vessels were insufficient to allow occlusion of the aorta for excision without jeopordizing the distal viscera. Locally, the collateral vessels may be so large that troublesome bleeding occurs at operation. Aneurysms in these may be the site of fatal rupture. Occasionally, a patent ductus arteriosus is present. Finally, the coarctation may not be in the thoracic aorta but in an uncorrectible form in the abdomen. This was discovered in an angiocardiogram of a young woman who had already made plans for thoracic surgery. Since many of these variations can be demonstrated by angiocardiography, the pre-operative examination is amply justified and often rewarding.

Generally, the venous angiocardiogram as described is sufficient. In our experience, this is the case when the site of coarctation is short and lies near the left subclavian artery. In several of our cases with poor visualization, subsequent exploration showed the coarctation to be long and diffuse, or at some distance distally. When poorly seen the coarctation may be studied further by thoracic aortography. Then, the aorta is opacified by retrograde injection into the left common carotid artery by needle or cannula,[4] or through the left brachial

artery by catheter or cannula.[13] Considering the operative procedure and greater risk of cerebral damage, we prefer angiocardiography as a routine, and hold aortography in reserve.

Patent Ductus Arteriosus

The clinical features of this lesion and the possibility of complete surgical cure are well known. Usually, because of the higher pressure in the aorta than in the pulmonary artery, the patent vessel allows a "left to right" shunt of oxygenated blood between these arteries resulting in useless recirculation of blood through the lungs. The angiocardiogram demonstrates the reopacification of the pulmonary arteries from the aorta after the right ventricle has emptied (Fig. 4). Simultaneous fill of the pulmonary arteries and aorta is not normal provided the injection is sufficiently rapid (less than two seconds' duration). Refill occurs in several lesions and is not specific for patent ductus arteriosus. Often the undivided pulmonary artery is demonstrably enlarged, the left pulmonary artery may be unusually high in position, and as shown by Sussman, local aneurysmal enlargement of the aorta at the origin of the ductus is an almost invariable and specific finding.[17] The ductus itself is not shown, being too small or short (often only a window between the vessels) to be projected free of other vessels.

Despite these apparently distinguishing features, angiocardiography is seldom necessary for diagnosis. Likewise, the additional information obtained by this procedure is but rarely helpful to the surgeon. Since these opinions prevailed at the onset of our interest in angiocardiography, and we have found no reason to believe otherwise, we have used it in only six cases. Though in all, one or more of the features described above was found and the correct diagnosis suggested, in the light of present experience with the vagaries of the circulation recorded by this method, we would hesitate to make the diagnosis so confidently now from the angiocardiographic evidence alone.

There are a few cases of patent ductus arteriosus where the diagnosis is not clinically certain. For these "atypical" cases, some diagnostic auxiliary measure is desirable. In our opinion, angiocardiographic findings are not sufficiently specific that other non-correctible causes of left-to-right shunts may be excluded. Cardiac catheterization now seems to be a more reliable method to meet this situation. If it is not available, recourse may be made to retrograde thoracic aortography through which the ductus itself, on occasion, may be seen and where usually the diagnosis is clearly evident as the pulmonary arteries are filled from the opaque aorta. This latter procedure can be of great value in infants with congestive failure as the only manifestation of a patent ductus arteriosus or coarctation.[12] We now employ one of these other methods above for the "atypical" cases where a patent ductus arteriosus is a possibility and must be excluded.

Tetralogy of Fallot

This is the commonest type of congenital heart disease associated with cyanosis.[18] In this condition, the aorta is situated so as to override the ventricular septum in which there is a high membranous defect (dextroposition of the aorta). This allows the aorta to be in direct communication with both ventricles, thereby receiving blood in near equal pressure from each, and permitting some of the unoxygenated venous blood entering the right heart to bypass the lungs. In addition, pulmonary blood flow is further reduced by an obstruction usually situated in the outflow portion of the right ventricle (infundibular stenosis). This takes the form of a narrow muscular channel, perhaps with some slight dilatation in its center, the so-called third ventricle.[8] Besides this subpulmonic stenosis, the undivided pulmonary artery is often reduced in calibre. Less commonly, the pulmonary stenosis is valvular rather than subpulmonic. The right ventricle is regularly hypertrophied, maintaining as it must, systemic arterial pressure. The left heart is usually normal.

The angiocardiogram shows these features quite consistently. The principal finding is the premature fill of the aorta from the right ventricle before significant contrast has reached the left ventricle (Fig. 5). Since the aorta is also later opacified by blood returning from the lungs to the left heart, it is clear that it must receive blood from both ventricles. A ventricular septal defect, therefore, must be present though its margins are seldom outlined on the films. The dextroposition of the aorta is occasionally seen directly by an eccentric position of the base of the aorta over the ventricuular septum (Fig. 5).

In the usual steep left anterior oblique projection, the area of pulmonary stenosis is not seen,

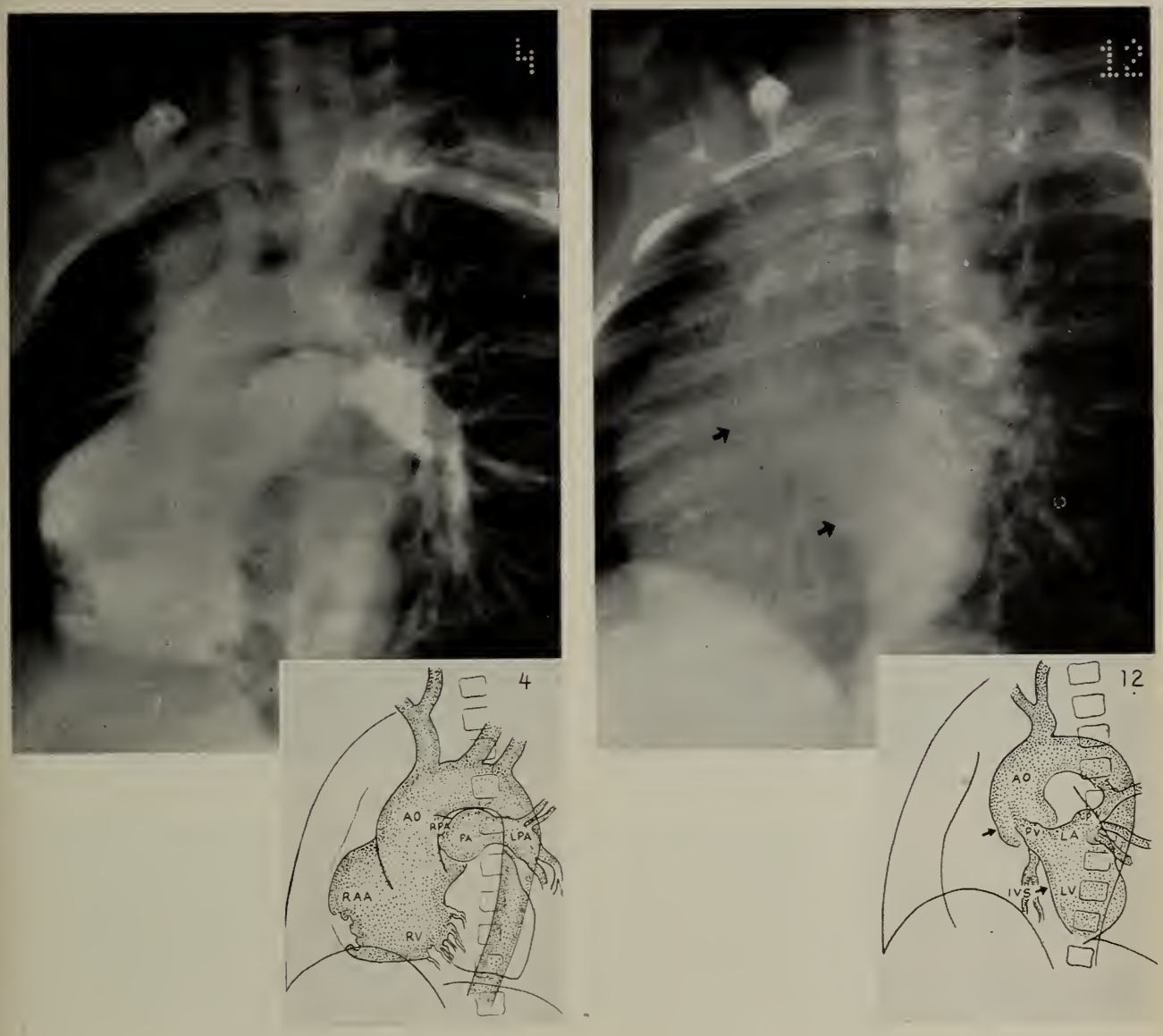


Fig. 5. Tetralogy of Fallot with left aortic arch. Left anterior oblique. Two films per second. Note simultaneous fill of aorta and pulmonary arteries from right ventricle (Film 4), eccentric position of aorta over interventricular septum (IVS) Film 12. Pulmonary stenosis not visible.

being obscured by the overlying vena cava and the base of the aorta. The absence of a normally developed right ventricular outflow tract and undivided pulmonary artery is indirect evidence of such stenosis. While the right and left pulmonary arteries are usually seen and may be of any size—large, small, or normal, the peripheral pulmonary arteries are always reduced in prominence and thereby give further evidence of reduced pulmonary blood flow. If another projection is used —the frontal, right anterior oblique or shallow left anterior oblique as in Figure 6, the stenosed outflow tract usually can be identified. Frequently, there is deformity of the junction of the right and left pulmonary arteries resembling a "bird's wing" due to shortening and underdevelopment of the undivided pulmonary artery.

Right ventricular hypertrophy can occasionally be seen by a thick unopacified wall of the right ventricle or abnormal convexity of the ventricular septum to the left. The right auricle is sometimes enlarged, but the left heart chambers are seen to be normal.

Important variations occur, and these have to do with the position of the aortic arch and the degree of pulmonary stenosis. In most cases, the arch of the aorta and great vessels are arranged normally. However, in 25 per cent, the aorta arches and descends to the right of the spine,[2] and the great vessels have a mirror arrangement (Fig.

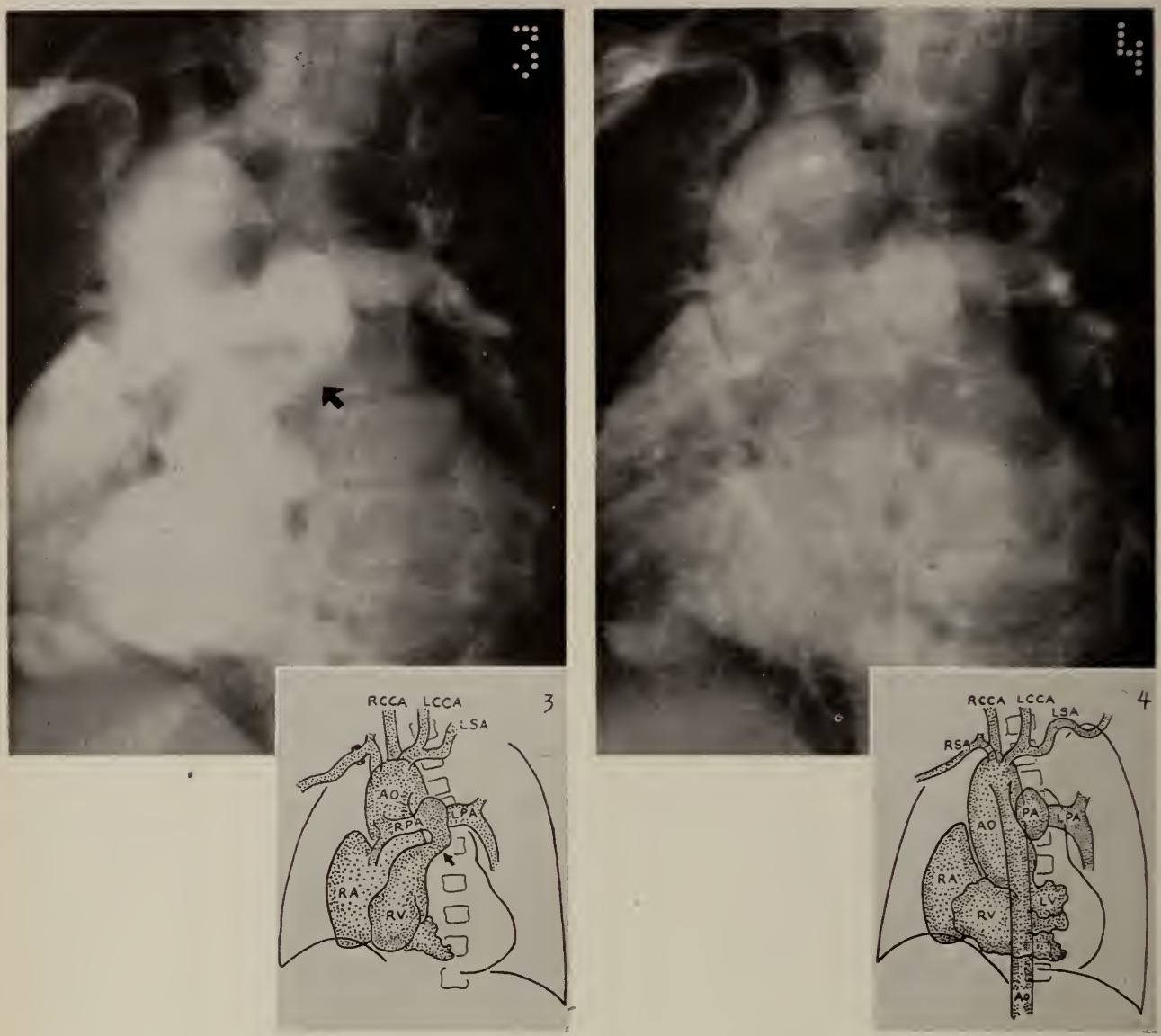


Fig. 6. Tetralogy of Fallot with right aortic arch. Shallow left anterior oblique. Two films per second. Note premature fill of aorta from right ventricle, pulmonary stenosis (arrow Film 3), right-sided aortic arch and descending aorta (Film 4).

6). Under this circumstance, the first vessel to arise from the aorta is the left innominate artery followed by the right common carotid and right subclavian. At times the origin of the great vessels vary considerably from these generally prevailing patterns.

Pulmonary stenosis may be extreme. In this circumstance, all the pulmonary vessels are diminutive and slow to opacify. If they cannot be visualized, complete occlusion (stresia) of some portion of the passage between right ventricle and the pulmonary arteries is suspected. This situation has been termed "pseudo-truncus arteriosus" by Taussig.[18] Blood reaches the lungs from the aorta by way of enlarged bronchial arteries or through a patent ductus arteriosus. In this circumstance, the aorta is often of increased calibre.

Finally, one may find in association with the other components of the tetrology of Fallot an auricular septal defect, the so-called "pentalogy." Here the left auricle is seen to fill from the right, demonstrating another pulmonary bypass.

With all these features, there is seldom any difficulty in recognizing tetralogy of Fallot from the angiocardiogram. The same is true clinically for experienced cardiologists. However, the examination has been of diagnostic value in a few cases where prelinimary clinical findings have not allowed differentiation of tetralogy of Fallot, pulmonary valvular stenosis with patent foramen ovale and true truncus arteriosus.

In addition, the angiocardiogram provides the

surgeon with information regarding the size, position and length of the vessels which he will use for creation of an artificial ductus arteriosus. It is true that in most cases the position of the aorta can be accurately determined fluoroscopically. Occasionally, angiocardiography is needed for localization. The size of the right and left pulmonary arteries is important and is usually well shown. Their non-visualization in the angiocardiogram, however, does not preclude the presence of vessels suitable for corrective surgery distal to an atretic segment. If they are not visible, there is a good possibility that one or both are minute. The operation is then of considerably greater risk. It is reassuring to the surgeon to know that suitable arteries are available for his use.

Pulmonary Valvular Stenosis with Intact Ventricular Septum

This is an anomaly, the frequency and importance of which had not been appreciated until the more recent intensive study of congenital heart disease. Here the obstruction to pulmonary blood flow most frequently lies in a stenosed pulmonary valve. Subsequent to this damming effect, right ventricular hypertension occurs which at times, in the absence of a communication with the left ventricle, may exceed, even double, the systemic blood pressure. This, of course, is accompanied by marked right ventricular hypertrophy. When this valvular stenosis is isolated, patients are not cyanotic because all the blood returning to the right auricle must pass through the lungs where it is fully oxygenated. Usually, they are not severely handicapped. But, as more often occurs, the foramen ovale is incompetent, and unoxygenated venous blood reaches the left auricle from an enlarged and hypertensive right auricle. This results in peripheral cyanosis. These patients are often more handicapped than those with tetralogy of Fallot. Corrective surgery is more properly and effectively, a pulmonary valvulotomy than the creation of an artificial ductus arteriosus.[3] Thus, the importance of differentiating this lesion from tetrology of Fallot is evident. This differentiation is sometimes possible clinically and radiographically.

The angiocardiogram demonstrates enlarged right cardiac chambers, enlarged undivided pulmonary artery and main branches with diminutive peripheral arteries. Emptying of the right ventricle and pulmonary arteries may be delayed so that the aorta will be seen before the pulmonary arteries empty. This simultaneous fill should not be taken as evidence of a left-to-right shunt in the presence of diminutive peripheral pulmonary arteries. The deformed valve itself has not been visible. The patent foramen ovale permits early fill of the left heart and aorta. This premature fill of the aorta does not indicate dextroposition of the aorta. In this case, the prematurely opacified left heart is the source of opaque material and not the right as in tetralogy of Fallot. If, as sometimes occurs, there is an auricular defect with tetralogy of Fallot, the differentiation of "pentology" and pulmonary stenosis with patent foramen ovale may be difficult. We erred in one case where in frontal view the early fill of the aorta suggested tetralogy. The importance of the visible normal right ventricular outflow tract and the premature fill of the left cardiac chambers was not appreciated. The patient did not survive a Blalock procedure for suspected tetralogy of Fallot and at autopsy proved to have pulmonary valvular stenosis and patent foramen ovale. A left oblique projection would have shown more adequately the premature fill of the aorta from the left heart. For this reason, we now employ this position for our initial angiocardiogram in order to separate the two sides of the heart, though we realize we may not see the area of pulmonary stenosis to best advantage.

Tricuspid Atresia with Underdevelopment of the Right Ventricle

This anomaly is usually first seriously considered when a cyanotic infant or child shows left axis deviation on the electrocardiogram. In the presence of tricuspid valve stenosis or atresia, the right ventricle is underdeveloped. All, or most, of the venous blood returning to the heart passes through an auricular septal defect to the left auricle and thence to the left ventricle. From here, it passes to the aorta and pulmonary arteries, reaching the latter via a small ventricular septal defect and hypoplastic right ventricle. Frequently, the pulmonary blood supply is reduced by subpulmonic stenosis and hypoplastic pulmonary artery. A patent ductus arteriosus or large bronchial arteries may, in part, compensate for this reduced pulmonary blood flow. In addition to the basic tricuspid valvular lesion, about one-third of the cases have transposition of the great vessels with the aorta arising from the right ventricle and pul-

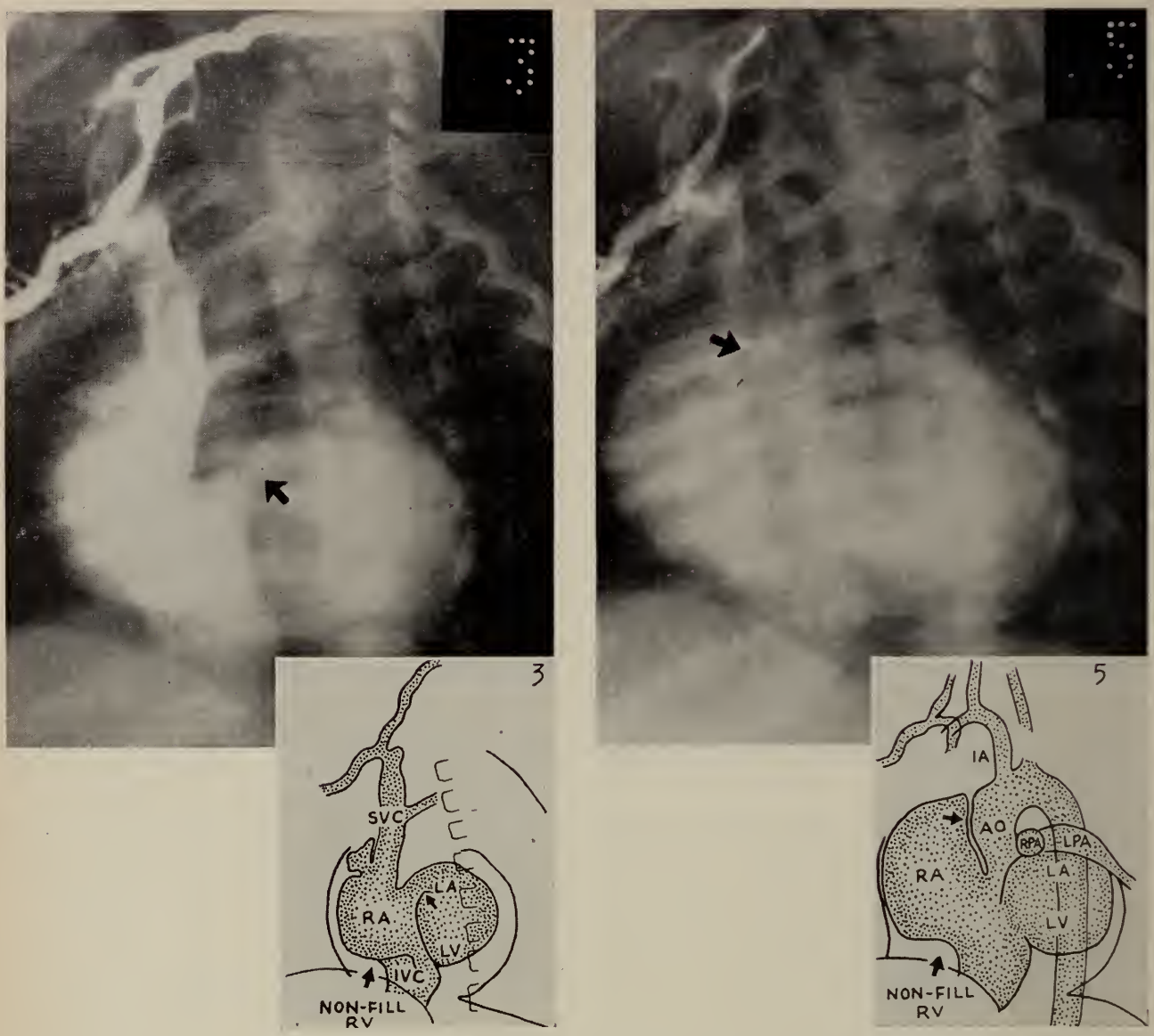


Fig. 7. Tricuspid atresia, hypoplastic right ventricle, pulmonary stenosis. Left anterior oblique, two films per second. Note large right auricle, auricular septal defect (arrow, Film 3), prompt fill of left heart, non-fill of right ventricle, normal position of aorta (arrow, Film 5), small pulmonary arteries. Autopsy confirmation.

monary artery from the left. Pulmonary blood flow may then be normal or increased, but sometimes it is reduced.

Operative palliation consists of creating an artificial ductus arteriosus, provided the auricular septal defect is large enough to supply both the peripheral and the added pulmonary circulations.

The angiocardiogram is distinguished by the immediate fill of the left auricle from the right and non-visualization of the right ventricle.[6] This latter feature is shown in the left oblique projection in which contrast material does not overlie the right diaphragm, as is the case if the right ventricle fills (Fig. 7). Both the right auricle and left ventricle appear very large. Usually, the origin of the aorta from the left ventricle is evident, but transposition may be visible. Pulmonary arteries have been small in the three cases we have examined, and their source of fill not apparent. The peripheral arteries of the lung are small.

It is reasonable to question the use of angiocardiography when the presence of left axis deviation in association with cyanosis makes the diagnosis quite certain. Again, it is the desire of our surgical colleagues to know the position of the aorta and the availability of the pulmonary arteries that prompt this study. Unless reduced pulmonary blood flow is accompanied by a large auricular defect, it is unlikely that the creation of an artificial ductus arteriosus would be recommended.[16]

Discussion

The single serious objection to angiocardiography in congenital heart disease is the well-documented danger of fatal reaction. Figures from the largest reported series indicate this occurs in approximately 1 per cent of cyanotic patients.[15] It is significant that twenty-one of the twenty-three deaths attributed to angiocardiography collected by Dotter and Jackson,[7] were in congenital cardiacs, and of these, seventeen had cyanotic heart disease. We have had one death in a cyanotic infant whose autopsy findings were aortic valve stenosis, hypoplastic ascending aorta and patent ductus arteriosus. Our group comprises 122 patients with congenital cardiovascular disease. Sixty-three of these had lesions causing cyanosis, and in these, seventy-five injections were used. The lethal potentiality of a diagnostic procedure should be given considerable respect, and the examination used only when the value of the information that may be gained justifies the risk. Multiple injections should be and can be avoided if one will be satisfied with a single projection. This is usually possible. In this regard, simultaneous biplane filming makes the most of one injection.[1]

The possibility of predicting untoward reaction by preliminary testing has been studied by Dotter and Jackson.[7] Apparently, this is not possible. Although we do regularly use the previously mentioned preliminary testing, we are not at all certain that these precautions are of more than legal protection. We have had two patients who showed no response to the preliminary test dose only to develop giant urticaria and severe angioneurotic edema immediately following the larger injection. In our one fatal case, preliminary testing was not provocative. If sensitivity to the contrast material is demonstrated, or if there is evidence of an allergic diathesis, the injection probably should be withheld. In most cases, serious reaction seems unpredictable. Probably, as Scott has suggested,[15] this risk will be present until a safer contrast material is available.

Most patients find this procedure quite unpleasant, experiencing sudden intense warmth, weakness, and a headache lasting three to five minutes. Frequently, there is nausea and vomiting. Cyanosis may be intensified in previously cyanotic patients. Some degree of urticaria is not uncommon. Three patients have had alarming though transient brachycardia. Three others had temporary tachycardia. The occurrence of such arrhythmias during the procedure has been recorded previously.[11]

Sosman has stated that the objective of cardiac catheterization and angiocardiography should be to provide information that will allow accurate diagnosis in future patients by simpler means. Already these procedures have facilitated our early recognition of the lesions described in this paper. It does not seem too much to expect that in the future, they will find application only in unusual situations. This trend is already evident in our hospital.

For the present, the usefulness of angiocardiography seems to be inversely proportional to the experience and confidence of the diagnostic-therapeutic team—the pediatrician or internist, thoracic surgeon and radiologist. Many centers find little use for it now in preoperative appraisal. However, we continue to benefit from angiocardiography in some of the patients with cyanosis and others with coarctation, both in diagnosis and preoperative anatomic evaluation. The left-to-right shunts would appear to be more adequately diagnosed by cardiac catheterization.

Summary

1. The angiocardiographic features of certain surgically correctible congenital cardiovascular lesions are presented.

2. This procedure has been of particular value in the diagnosis of lesions producing cyanosis.

3. By demonstrating the pathologic anatomy of the patient preoperatively, angiocardiography has facilitated the surgical planning in coarctation of the aorta and several types of cyanotic heart disease.

4. It has not been helpful in the differentiation of the patent ductus arteriosus from other lesions causing a left-to-right shunt.

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Myocardial Infarction

A Study of the Acute Phase

By F. Janney Smith, M.D.
Detroit, Michigan

CORONARY ARTERY disease has increased in the past thirty years until it is now the most common type of heart ailment. This is especially true of coronary artery thrombosis with myocardial infarction. This is due partly to factors which have decreased death rates of infectious diseases, allowing a greater percentage of the population to reach age groups commonly afflicted with atherosclerotic circulatory diseases. Improved diagnostic facilities and a clinical awareness of the problem have also, to some extent, been responsible for this increase.

We are presenting 920 cases of acute myocardial infarction from the records of the Henry Ford Hospital, covering the period from 1925 to May 1, 1949. The cases were selected from 2,024 cases indexed as coronary thrombosis with myocardial infarction, covering this period. Cases were selected to fulfill the criteria of follow-up for six weeks from onset of the condition. Only those cases were used which were objectively diagnosed from either (1) clinical course and electrocardiographic study or (2) demonstration at autopsy of recent myocardial infarction.

Many reports [2,4,5,8,9,14,17] have been made regarding the various diagnostic and prognostic aspects of this disease. However, we shall present only the statistics which have been gathered from this study.

This represents a study taken from the general population of a busy industrial city, where many people live under stress of production-line working conditions and the pressure of working to meet deadlines is felt by all. These figures could be different than those from rural districts. Also, several nationalities are represented in the study.

The utilization of various clinical data, such as leukocyte counts, sedimentation rates, blood pressure changes, and the mental status of the patient, as prognostic signs, have been stressed in the literature. Because many of our patients were seen first on different days from the onset of symptoms (from the first day to two weeks), we found it difficult to correlate some of these features with the eventual outcome of the case. However, there were many factors elicited by history and physical examination, which we wish to discuss either as playing a contributing role in the cause of the attack or as a contributing influence on the eventual outcome. There are complications which arose during the course of illness which we shall consider as to their influence on the individual case. We shall also discuss the management of these complications.

TABLE I

Sex	Location of Infarction	Received No Anticoagulants		Received Anticoagulants	
		Total	Deaths	Total	Deaths
Male 749 Cases	Anterior	353	92 (26.0%)	88	10 (11.3%)
	Posterior	234	46 (19.6%)	60	7 (11.6%)
	Unknown	11	6 (54.5%)	3	1 (33.3%)
	Total	598	144 (24.0%)	151	18 (11.9%)
Female 171 Cases	Anterior	74	30 (40.5%)	23	6 (26.0%)
	Posterior	56	10 (17.8%)	15	3 (20.0%)
	Unknown	3	3 (100%)	0	0 (0.0%)
	Total	133	43 (32.3%)	38	9 (23.6%)
Total Both Sexes		731	187 (25.4%)	189	27 (14.2%)

Mortality as Related to Sex and Location of Infarction. Comparison of Patients Receiving Anticoagulants with Those Receiving No Anticoagulants.

TABLE II. MORTALITY RATES

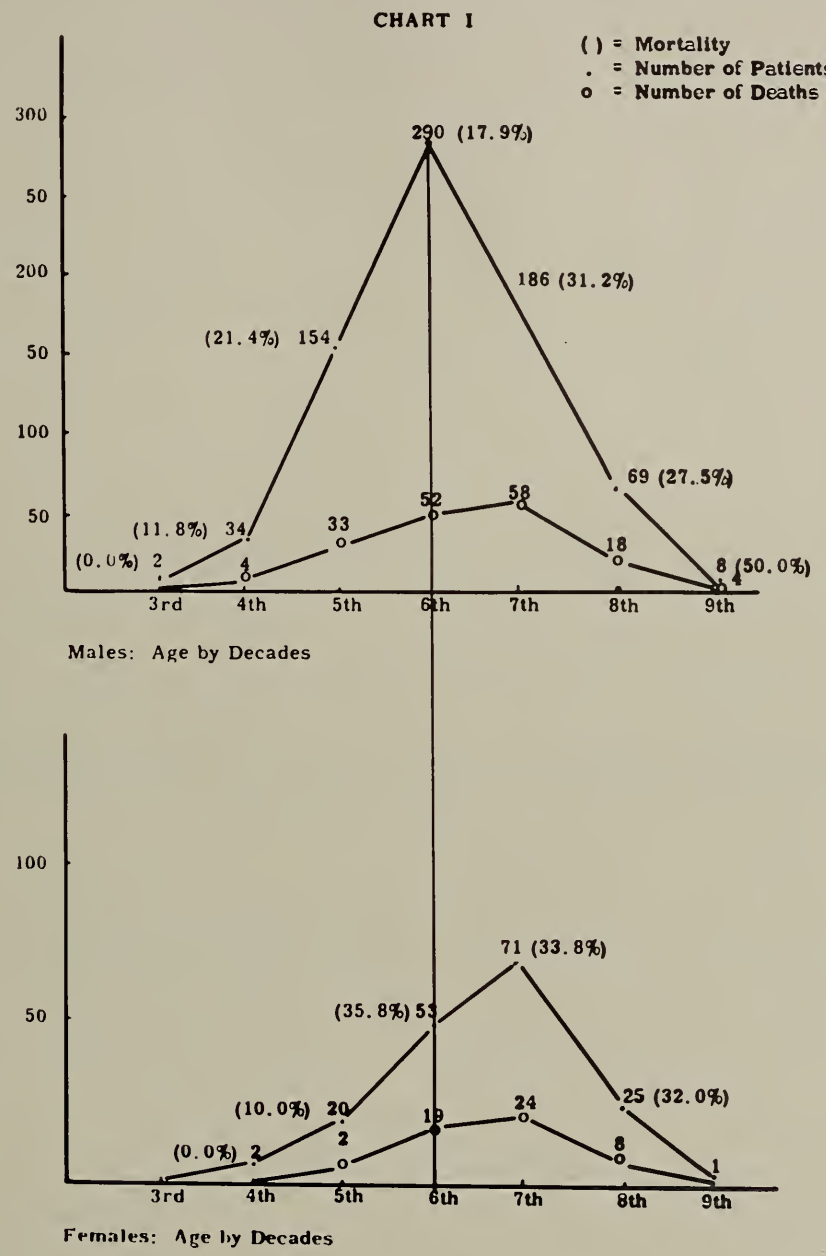
Decade	Male Cases	Mortality	Female Cases	Mortality
3rd	2	0	0	0
4th	34	4 (11.8%)	2	0
5th	154	33 (21.4%)	20	2 (10%)
6th	290	52 (17.9%)	53	19 (35.8%)
7th	186	58 (31.2%)	71	24 (33.8%)
8th	69	18 (27.5%)	25	8 (32%)
9th	8	4 (50%)	1	0

Presented at the Second Annual Heart Day of the Michigan Heart Association, Detroit, Michigan, March 17, 1951.

From the Division of Cardiology, Department of Medicine, Henry Ford Hospital.

This work has been supported equally by the Michigan Heart Association and the American Heart Association.

Table I lists the total number of cases according to sex, location of the infarction, and whether the patient received anticoagulants. Among these 920 cases there were 214 deaths, an overall mortality rate of 23.2 per cent.



Age and Sex Distribution

This series comprises 749 males and 171 females, a ratio of 4.4 males to one female. In the series of Billings, et al,[2] from Nashville, the ratio of males was 2.7 to one female. Chambers[4] in New York, and Mullins[10] in Pittsburgh had ratios of three males to one female. Mintz and Katz[9] in Chicago, gave a figure of 2.2 males to one female, and Parkinson and Bedford[13] had thirteen males to one female. The mortality rate for the females was somewhat higher than that for the males. On an average the females were older than the males at the time of death. There were 61 per cent of the females and 49 per cent of the males beyond age sixty. Other authors found essentially this same sex difference. Mintz and Katz[9] series reported the females' average age as 63.4 years, and the males' 59.6 at the time of death.

Tabulation of the patient's age at the onset, revealed that women were somewhat older at the time of their initial attack. In most males, the initial attack occurred in the 6th decade, whereas in females the onset was not until the 7th decade.

Other series[2,4,8,9,10] have shown that the females

were on an average from three to six years older than the males, at the time of the onset of their illness. There were only two women below age forty, both of whom survived their attack. There were thirty-four men less than forty years of age; two men were less than thirty, one being twenty-four. The mortality rates in the various decades of life are shown in Table II.

Chart I shows the relative incidence and mortality of both sexes. Both sexes show similar mortality rates after the 6th decade. The mortality rate in the females in the 6th decade was strikingly higher than that of the males. The number of attacks occurring in the males was the greater.

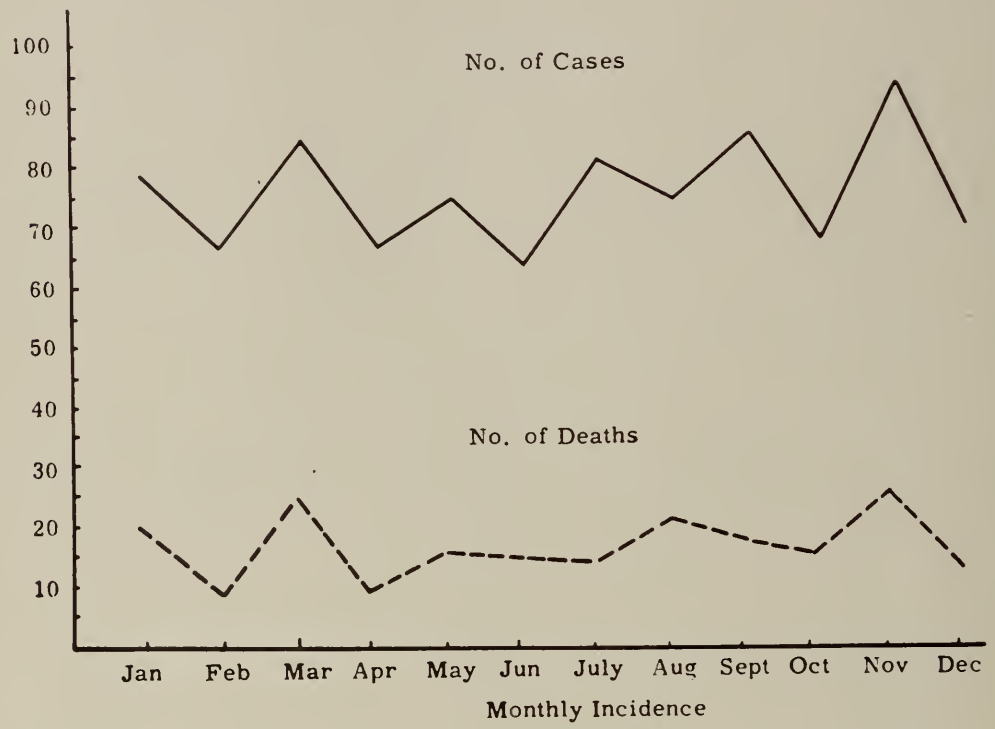
Seasonal Incidence

In Chart II the monthly incidence and number of deaths are charted. No definitely significant peaks appear except in November and only a slight increase above the average then. There is a fairly even distribution throughout the year. The greatest mortality peaks occurred in March and November, and seemed to parallel the number of cases each month.

Occupation

In this series 34.2 per cent were in the laboring group, 18.0 per cent unskilled labor and 16.2 per cent skilled labor. Housewives made up 21.6 per cent of the total. Business, professional and executive men made up 28.8 per cent of the total; salesmen 6.6 per cent, retired 4.8 per cent, unemployed 2.4 per cent, and farmers 1.2 per cent.

CHART II



History and Physical Examination

In Table III are tabulated factors obtained from the history and physical findings of these patients.

Hypertension

Hypertension existed in 36.8 per cent of the men and 67.2 per cent of the women. Many other authors have reported approximately the same incidence. In Mintz and Katz'[9] large series, 35.9 per cent of the patients had hypertension. In Masters'[1] somewhat smaller series 69 per cent of the patients had hypertension. Its incidence is much greater in women than in men in most series. However, many authors have concluded that the factor of hypertension had no influence on the immediate mortality. As seen in Table

TABLE III. ETIOLOGICAL FACTORS—AGE, SEX AND MORTALITY BY DECADES

Decade of Life	3rd	4th	5th	6th	7th	8th	9th	Total
Hypertension								
36.8% Male	1	8	54	109	80	20	4	276
Deaths	0	1	8	16	22	7	2	59 (21.3%)
67.2% Female	0	1	13	37	47	17	0	115
Deaths	0	0	1	10	15	3	0	29 (25.2%)
Angina Pectoris								
47.7% Male	0	1	66	153	105	29	3	357
Deaths	0	1	9	33	25	8	1	77 (21.5%)
53.8% Female	0	2	8	28	39	15	0	92
Deaths	0	0	1	6	12	5	0	24 (26.0%)
Obesity								
28.1% Male	1	13	41	84	59	12	1	211
Deaths	0	0	3	7	11	1	0	22 (10.4%)
52.6% Female	0	1	11	38	31	9	0	90
Deaths	0	0	0	10	13	3	0	26 (28.8%)
Diabetes								
8.4% Male	1	2	11	28	17	4	0	63
Deaths	0	0	1	5	6	0	0	12 (19.0%)
20.4% Female	0	0	2	13	13	7	0	35
Deaths	0	0	0	4	3	1	0	8 (22.8%)
Previous Myocardial Infarct								
14.5% Male	0	3	21	41	34	10	0	109
Deaths	0	1	11	11	12	1	0	36 (33.0%)
9.4% Female	0	0	1	9	6	0	0	16
Deaths	0	0	0	1	2	0	0	3 (18.7%)
Silent								
Male	0	0	4	2	6	1	0	13
Female	0	0	1	0	0	0	0	1
Syphilis								
Male	0	1	3	4	5	2	0	14
Female	0	0	0	0	0	0	0	0

III, our statistics bear this out. The mortality rate for the males with hypertension was 21.3 per cent, and the mortality rate for the females with hypertension was 25.2 per cent.

Angina Pectoris

Angina pectoris occurred in 47.7 per cent of the men and 53.8 per cent of the women. From the statistics of this series, its presence seemed to have no effect on the mortality rate. There were 357 males with angina pectoris with seventy-seven deaths; a mortality rate of 21.5 per cent. Ninety-two females had angina pectoris with twenty-four deaths; a mortality rate of 26.0 per cent. Site of the infarction in those with antecedent angina was in the same proportion as it appeared in the study as a whole. Mintz and Katz[9] found it equally common in the two sexes; 72.9 per cent of their patients had antecedent history of angina pectoris. The mortality rate in their series was 23.3 per cent for men, and 28.0 per cent for women.

Many of the cases in this series had the onset of pilot attacks of angina varying from a few days to a few weeks prior to the onset of their myocardial infarction. This is tabulated in Table IV. One hundred and eight males had angina pectoris of less than one month's duration, and twenty-one

TABLE IV. ANGINA PECTORIS RELATION TO INFARCTION DURATION

Sex	1 week	2 weeks	3 weeks	4 weeks	1 to 6 months	Over 6 months
Male	36	27	14	31	72	184
			Total	108		
Female	6	7	2	8	15	52
			Total	21		

females had angina of less than one month's duration; a total of 139 cases for the series; or, an incidence of 15.1 per cent. The mortality rate of this group, however, was no greater than the mortality rate of the group who had angina of longer standing. Because this pattern was found so frequently, thirty-nine patients who had developed angina pectoris abruptly and frequently have been hospitalized for a two-week period and given dicumarol during that time. Thirty-two of these were relieved of their attacks of pain. Two patients proceeded to develop myocardial infarction in the course of anticoagulant therapy in spite of well-controlled prothrombin times. Six patients went on to develop myocardial infarction after stopping the anticoagulant, three in the first week after the drug was discontinued.

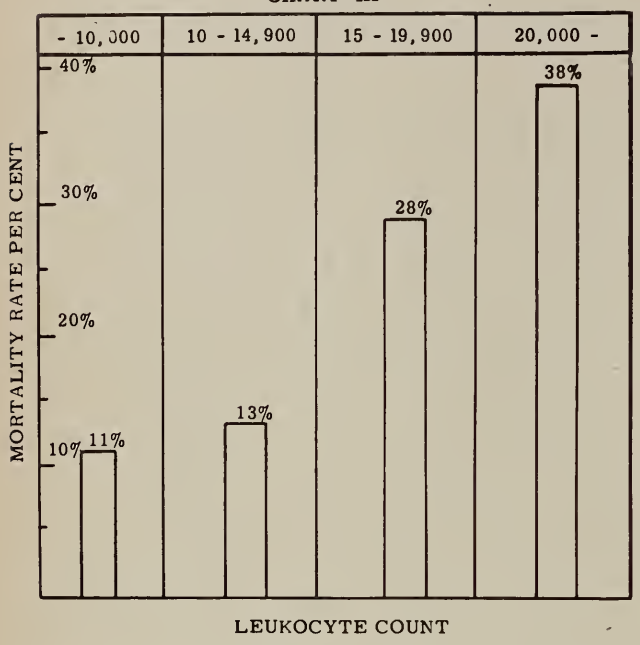
It is difficult to draw conclusions from this group because of the lack of a similar control series without anticoagulant therapy. But it does seem that patients with "pilot" angina have a strong tendency to progress to recognizable myocardial infarction. Again the occurrence of three of these instances within the first week after stopping the anticoagulant suggests that if this therapy is begun with such a patient, it should be continued for a somewhat longer period, perhaps a month or six weeks, or longer, and its administration then tapered off, since abrupt discontinuance at the end of two weeks may remove a needed protection or perhaps account for a rebound effect on the clotting mechanism. A similar study of this character was reported by Nichol, in the *Southern Medical Journal,* July, 1950.[12]

Obesity

This factor occurred in 28.1 per cent of the men, and 52.6 per cent of the women. There were twenty-one cases of obesity in the males with twenty-two deaths; a mortality rate of 10.4 per cent. It occurred ninety times in the female group with twenty-six deaths; or a mortality rate of 28.8 per cent. Billings, et al,[1] state that the im-

mediate mortality of the obese patients in their group was 32 per cent, for patients of average weight 39 per cent, and for the underweight group 60 per cent. The actual mortality rate for

CHART III



obese patients in this series is below the overall mortality rate for both sexes, and seems in keeping with the figures just stated.

Diabetes Mellitus

This condition was found in 8.4 per cent of the men and 20.4 per cent of the women in this series. No significant difference in the mortality rates of the diabetics and nondiabetics was found. There were sixty-three cases in the male group with twelve deaths; a mortality of 19.0 per cent; thirty-five cases amongst the female group with eight deaths; a mortality of 22.8 per cent. Other authors[8,9] have concluded that diabetes mellitus added considerably to the gravity of the prognosis in women. The figures from this series do not bear this out.

Previous Myocardial Infarction

This condition occurred with an incidence of 14.5 per cent in the males and 9.4 per cent incidence in the females. There were 109 men with previous myocardial infarctions with thirty-six deaths, or a mortality of 33 per cent. Sixteen women in this series had previous myocardial infarctions with three deaths occurring; a mortality rate of 18.7 per cent. From these figures, it would seem that a previous myocardial infarction added considerably to the gravity of a new infarct in the male.

Syphilis

Syphilis was found in only 1.8 per cent of this series. In only one patient was it proven to be a definite etiological factor in his illness. This patient was thirty-eight years old, a colored man, who, at autopsy, had marked narrowing of the coronary ostia secondary to luetic involvement of the aorta.

Silent myocardial infarctions are extremely rare. There were fourteen cases in this series. Mintz and Katz[9] found eighteen cases of silent myocardial infarction in their series of 572 cases. It did not seem to influence the mortality rate in our series.

Precipitating Factors

Masters[7] is of the school that accepts no cause except shock, or shock-like states as direct precipitating factors in coronary artery occlusion. In coronary insufficiency, however, he finds that there are etiological factors. These are increased cardiac work, diminished coronary flow and impaired oxygenation of the blood (usually occurring in combination). Either coronary occlusion or coronary insufficiency may result in acute myocardial infarction.

A history of onset occurring during the usual routine of day-to-day life was obtained in the majority of these cases. Possible precipitating factors occurred in sixty cases, an incidence of 6.5 per cent. These included such activities as strenuous physical exertion, bowling, driving an automobile, following a heavy meal, emotional crises, while hospitalized, postoperative, massive hemorrhage, diabetic acidosis, chest trauma, the use of Pitocin, bronchograms and venipuncture. The majority of cases in this series occurred during ordinary routine daytime activity, or while at rest either awake or during sleep.

Several disease states were found coincident to the attack, as follows: eight cases of cerebral vascular accident, eleven cases of gall-bladder disease, six cases of peptic ulcer, six cases of uremia, three cases of gout, three cases of pneumonia and three of pulmonary emphysema, two of myxedema, two cases of hyperthyroidism, five cases of carcinoma, one case of acute fibrinous pericarditis which followed pneumonia, two cases of polycy-

themia vera, and one case of pernicious anemia. Rheumatic heart disease was found in eight cases, and a history of pre-existing congestive heart failure was obtained in twenty-eight cases.

Leukocyte Count

The mortality rate seemed to rise in proportion to the leukocyte count, as it has been reported by other observers.[2,4,14] This is tabulated in Chart III; 11 per cent mortality occurred in the 10,000 and below group, a 13 per cent mortality in 10,000 to 15,000; 28 per cent in the 15,000 to 20,000; and a 38 per cent mortality rate when over 20,000.

Site of Infarction

The majority of the myocardial infarctions in this series occurred in the anterior wall of the left ventricle. There were 538 anterior infarctions, and 365 posterior infarctions. The mortality rate for the anterior group was 25.7 per cent and for the posterior group 18.1 per cent.

Table I breaks this down further as to the influence of sex and whether anticoagulants were received. There were 353 males with anterior myocardial infarctions with ninety-two deaths; a mortality rate of 26 per cent in the group which did not receive anticoagulants, as compared to seventy-four cases of anterior infarction in the female with thirty deaths, a mortality rate of 40.5 per cent.

Posterior myocardial infarction occurred 234 times in the male group that did not receive anticoagulants with forty-six deaths, a mortality of 19.6 per cent, as compared to fifty-six cases in the female group with ten deaths, or 17.8 per cent mortality.

In the group receiving anticoagulants there were eighty-eight males with ten deaths, a mortality rate of 11.3 per cent, in the anterior myocardial infarction group; and twenty-three cases of anterior myocardial infarction in the female group with six deaths, a mortality rate of 26 per cent. Posterior myocardial infarction involving sixty men, occurred in this group with seven deaths, a 11.6 per cent mortality; and fifteen women had posterior myocardial infarctions, with three deaths, or 20 per cent mortality.

The mortality rate differs with the site of the infarction. It was higher in the group of anterior infarcts occurring in females. There was little sex difference in the posterior group with or without anticoagulants. Various complications of acute myocardial infarction will be discussed under a separate heading revealing their relationship to the site of the infarct.

Other series indicating anterior infarction to be more serious are Vander Veer and Brown,[17] Stroud,[6] and Wood, et al.[20] No significant difference in mortality in anterior and posterior infarctions was reported by Billings,[1] Master, et al,[8] Williams,[19] Barnes and Ball,[1] and Levine and Brown.[5] From statistics alone Mintz and Katz[9] series suggests that posterior infarction has a more serious outlook.

Thromboembolic Complications

Table V shows the day and the week of thromboembolic complications. This is broken down into the different sexes and site of occurrence. The occurrence of fifty-eight in the first week and forty-nine in the second week, represent the peak numbers. This represents 34.9 per cent of the total for the first week and 29.5 per cent for the second week. The numbers rapidly diminish after this period. The large numbers which occurred during the first week of illness, especially the first three and four days, would indicate the rationale of starting anticoagulants promptly to combat the early occurrence of these conditions.

However, a comparison of myocardial infarction cases in our series receiving dicumarol alone with those given heparin initially as well, did not reveal any advantage for the latter group in the avoidance of thromboembolic complications. The fact that no such complication occurred in the first week among 142 cases treated with dicumarol alone in spite of the well-known lag of forty-eight to seventy-two hours in arriving at a prothrombin time of thirty to thirty-five seconds, suggests that in spite of this lag dicumarol probably has an appreciable immediate anticoagulant effect prior to the development of the usually regarded effective prothrombin level of thirty to thirty-five seconds.

The breakdown as to site of thromboembolic complications indicates, as has been the case in most series, that the majority of these lesions are pulmonary infarctions; thirty-two cases of pulmonary infarction occurred in the first week, twenty-one the second week, and sixteen the third week, with a rapidly diminishing number in the fourth, fifth and sixth weeks. When symptoms and signs of coronary occlusion recurred without evidence of

TABLE V. BREAKDOWN OF THROMBO-EMBOLIC COMPLICATIONS

Days		1	2	3	4	5	6	7	8	9	10	11	12	13	14	3rd wk.	4th wk.	5th wk.	6th wk.	Total
Pulmonary Infarction	M	—	3	5	3	5	3	3	4	4	2	2	3	1	2	13	4	4	4	—
	F	—	—	2	3	2	2	1	1	—	1	—	1	—	—	3	1	2	—	—
Total Days		—	—	3	7	6	7	5	4	5	4	3	2	4	1	2	—	—	—	—	—
Total Weeks		—	—	—	—	—	—	—	32	—	—	—	—	—	—	21	16	5	6	4	84
Cerebral Embolus	M	—	1	1	—	1	—	3	1	1	—	1	—	1	—	2	1	—	2	—
	F	—	—	1	—	1	—	—	—	—	—	1	—	—	—	1	—	—	—	19
Phlebitis	M	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1	—
	F	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	5
Mesenteric Embolus	M	—	1	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Emboli to Extremities	Popliteal	—	—	1	—	—	—	—	—	1	—	—	1	1	—	—	1	1	—	—
	Femoral	—	1	—	—	—	—	—	—	—	—	1	—	—	—	2	—	—	—	—
	Brachial	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
	Iliac Saddle	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	13
Splenic Infarct		—	1	2	1	—	—	—	1	—	—	—	—	—	1	1	—	—	1	8
Renal Infarct		—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	1	1	1	6
Extensions Primary	M	—	—	1	2	2	—	—	—	1	4	3	—	—	2	4	5	1	1	—
	F	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	2	—	—	29
New Area	M	—	—	—	1	—	—	—	—	—	—	1	1	1	1	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	7
Total		1	8	14	11	11	6	7	7	8	7	9	7	5	6	30	17	10	10	174
								58	1st week						49	2nd week				

TABLE VI. THROMBOEMBOLIC COMPLICATIONS: MORTALITY

Sex	No. Cases	No. Deaths	Mortality %
Male	114	48	42.17%
Female	28	12	42.9%
Total	142	60	42.2%

*Of a Total of 731 cases Receiving no Anticoagulants, 142 Patients had Thromboembolic Complications (19.4% incidence). These 142 patients had a total of 166 Thromboembolic Episodes.

electrocardiographic changes in a new area, the cases were classified as an extension of the primary infarction. When new electrocardiographic changes occurred, they were classified as extensions in a new area.

In Table VI are tabulated the mortality rates associated with thromboembolic complications as to sex. In this group there were a total of 731 patients who received no anticoagulants. Of these, 142 patients had thromboembolic complications, a 19.4 per cent incidence. There were a total of 174 thromboembolic episodes. In that group of patients having thromboembolic complications, there occurred a mortality of 42.2 per cent as compared to a 19.8 per cent mortality in the group that did not have thromboemboli.

There were 189 cases that received anticoagulants. Fifteen of these patients had thromboembolic episodes, an incidence of 7.9 per cent, as compared to the 19.4 per cent incidence in the group that did not receive anticoagulants. In the group that received anticoagulants, there were eight cases that had a thromboembolic episode before anticoagulants were started. These are not included in the total number of thromboembolic complications. However, seven had thromboemboli occur after the anticoagulant was stopped, and these are included.

Referring back to Table I there was a total of 151 cases in the mules with eighteen deaths, a 11.9 per cent mortality, in the group receiving anticoagulants. There was a total of thirty-eight cases with nine deaths, an over-all mortality of 23.6 per cent, in the females that received anticoagulants; a total of 189 cases in both sexes with twenty-seven deaths, an over-all mortality of 14.2 per cent, for the group receiving anticoagulants.

The incidence of thromboemboli in the series of Mintz and Katz[9] was 9.9 per cent. This group had a mortality rate of 55.8 per cent. Nay and Barnes[11] encountered thromboemboli in thirty-seven of 100 consecutive patients.

Arrhythmias

An arrhythmia occurred in some form in 16.3 per cent of the total group.

Extrasystoles were encountered more frequently than in any other arrhythmia. However, we doubt that the figures presented here represent the true incidence of this arrhythmia. It probably occurs much more frequently than the figures indicate. However, in the patients with extrasystoles the mortality rate was higher than for the group as

TABLE VII. PREMATURE BEATS

Type	Total No. Cases	Total No. Deaths	Mortality Per Cent
Nodal	1	0	0
Auricular	7	1	14.3%
Ventricular	63	23	36.5%
No Quinidine	26	10	38.4%
Quinidine	37	13	35.1%
Total	71	24	33.8%
Incidence 7.7%			

a whole. Table VII shows the incidence and the number of deaths broken down for nodal, auricular and ventricular extrasystoles.

In the sixty-three cases in which ventricular extrasystoles occurred, there were twenty-three deaths, a mortality rate of 36.5 per cent. There was one death in the seven cases having auricular extrasystoles. Nodal extrasystoles were recorded in one case.

There were twenty-six patients having ventricular extrasystoles that did not receive quinidine. Ten deaths occurred, a mortality rate of 38.4 per cent.

There were thirty-seven cases of ventricular extrasystoles that received quinidine. There were thirteen deaths in this group, a mortality rate of 35.1 per cent. This does not represent any favorable change in mortality in the group receiving quinidine.

There was a total of seventy-one cases in the whole series in which premature beats were recorded, an incidence of 7.7 per cent with twenty-four deaths, or 33.8 per cent mortality. This suggests that the occurrence of extrasystoles has importance as far as the mortality rate is concerned. The frequency of their occurrence needs much closer checking, and the use of quinidine as a prophylactic measure following the appearance of premature beats needs further evaluation.

The appearance of an arrhythmia, other than premature beats, is generally regarded to be more serious than premature beats, and in this series did affect the mortality rate appreciably. The males having these arrhythmias had an over-all mortality of 30.3 per cent. The females had a mortality of 53.8 per cent. These figures are recorded in Table VIII. In such patients encountered by Mintz and Katz,[9] the mortality rate was 43.6 per cent for the group and 66.7 per cent for the females of that group.

Auricular fibrillation was seen more often than the other arrhythmias. This arrhythmia occurred

TABLE VIII

Sex	Type of Arrhythmia	No. Cases	No. Deaths	Mortality %
Male	Auricular Fibrillation	34	9	26.5%
	Ventricular Tachycardia	12	7	58.3%
	Complete Heart Block	10	5	50.0%
	Nodal Tachycardia	3	1	33.3%
	Auricular Flutter	4	0	0.0%
	Auricular Tachycardia	3	0	0.0%
Female	Auricular Fibrillation	10	5	50.0%
	Ventricular Tachycardia	1	1	100.0%
	Complete Heart Block	1	1	100.0%
	Nodal Tachycardia	1	0	0.0%

TABLE IX. AURICULAR FIBRILLATION CONVERSION AND MORTALITY

	Anterior	Posterior	Unknown
Total	20	20	4
Deaths	4	8	2
Conversion			
Spontaneous	4	8	1
Digitalis	4	4	2
Quinidine	2	2	0
Quinidine and Digitalis	3	0	0
Failed to Convert (received Digitalis)	6	4	1
Failed to Convert (no Digitalis)	1	2	0

forty-four times in this series and is covered in Table IX showing the effects of the various combinations of digitalis and quinidine used in the therapy of this arrhythmia.

There were twenty cases each in the anterior and posterior groups. Four cases occurred in the unknown group. The incidence appears to be greater in the posterior group as there was a smaller number of this type of infarction. Fourteen deaths occurred, a mortality of 31.8 per cent. Of sixteen cases receiving neither digitalis or quinidine, thirteen converted to sinus rhythm spontaneously. Twenty-eight cases received digitalis or quinidine, or a combination of the two, in an effort to effect conversion to sinus rhythm. Ten cases converted with digitalis alone, four with quinidine alone, and three with quinidine and digitalis. Eleven cases received digitalis and failed to convert. Digitalis alone was not given for the purpose of converting the arrhythmia to normal, but to control the rate or because the patient was in congestive heart failure. The majority of the cases having auricular fibrillation occurred during the first week of illness (Table X).

Ventricular tachycardia was demonstrated by

TABLE X. AURICULAR FIBRILLATION PERIOD OF ONSET

Day	1	2	3	4	5	6	7	2nd wk.	3rd week	4th week	5th week	6th week
Number	13	3	7	4	4	2	5	4	0	1	1	0
Total 1st week 38								4	0	1	1	0

TABLE XI. VENTRICULAR TACHYCARDIA 13 PATIENTS

Type	Deaths	Recovered	Total	Day of Onset	1	2	3	4	5	6	7	14	15	16	17	18
Anterior	6	3	9	Total	5	3	1	0	2	0	0	0	1	0	0	1
Posterior	1	2	3													
Unknown	1	0	1													

TABLE XII. CONGESTIVE FAILURE 156 PATIENTS. PERIOD OF ONSET

Day	1	2	3	4	5	6	7	1st wk.	2nd	3rd	4th	5th	6th	Unknown
Anterior	30	6	6	4	10	6	4	—	14	9	1	1	0	8
Posterior	8	5	5	4	3	4	2	—	9	1	2	1	1	1
Unknown	5	0	0	1	0	1	1	—	0	2	1	0	0	0
Total	43	11	11	9	13	11	7	105	23	12	4	2	1	9
Death*	10	13	8	6	10	11	3	61	20	5	3	0	0	0

*Day of death regardless of time of onset

MORTALITY CONGESTIVE FAILURE

Sex	Total	Deaths	Mortality
Male	130	74	56.9
Female	26	15	57.7

electrocardiograph on thirteen occasions. It occurred most often during the first five days of illness. Both of the two patients in whom the arrhythmia occurred on the fifteenth and eighteenth days from onset had received digitalis shortly before the arrhythmia appeared.

The high mortality rate associated with ventricular tachycardia is evident from Table XI. In only one instance was spontaneous conversion to sinus rhythm recorded. In more recent cases we have been more vigorous in our therapy with quinidine both orally and parenterally, and seemingly have been more successful in stopping these attacks. Table XI shows the extremely high mortality rate associated with this arrhythmia, there being nine cases of anterior myocardial infarction with six deaths and three posterior myocardial infarctions with one death. It occurred once in an unknown type with death occurring in this case. An over-all mortality rate of 61.5 per cent is recorded in patients with this arrhythmia.

Congestive Heart Failure

This condition occurred in 156 of the cases of this series, an incidence of 16.9 per cent. The appearance of congestive heart failure following acute myocardial infarction is ominous. The mortality rate for the complication was about the same for both sexes; 56.9 per cent for the males and 57.7 per cent for the females. Table XII concerns 156 patients with this complication; 66 per cent of them, 61 cases, occurred during the first week of illness. The mortality rate was particularly high in those having the onset of their congestive failure during the first week of illness, although many did not die until the second week of illness.

Digitalis was used in the patients most seriously ill of congestive failure. Many of those who were in failure of mild degree were treated by restricting the sodium intake, and giving ammonium chloride and mercurial diuretics. However, in the group that did receive digitalis which undoubtedly were the more seriously ill, it seemed to influence the outcome favorably when compared with those having no digitalis (Table XIII).

There was a total of fifty-seven cases that did not receive digitalis with thirty-seven deaths, a 64.9 per cent mortality; and ninety-nine cases that did receive digitalis with fifty-three deaths, a 53.5 per cent mortality. Of the 538 anterior myocardial infarctions, ninety-eight had congestive failure, an incidence of 18.2 per cent. Of the 365 cases of posterior myocardial infarction, forty-seven had congestive failure, an incidence of 12.8 per cent. There were seventeen unknown types of myocardial infarction with congestive failure occurring in eleven, a 64.7 per cent inci-

TABLE XIII. CONGESTIVE FAILURE

	No Digitalis		Digitalis		Total with Failure	Total No. of Cases	O/O with Congestive Failure
	Total	Deaths	Total	Deaths			
Anterior	38	23 (60.5%)	60	30 (50.0%)	98	538	18.2%
Posterior	14	10 (71.4%)	33	19 (57.5%)	47	365	12.8%
Unknown	5	4 (80.0%)	6	4 (66.6%)	11	17	64.7%
Total	57	37 (64.9%)	99	53 (53.5%)	156	920	16.9%

dence. The high incidence of congestive failure occurring in this group is explained by the fact that many who had unknown sites of infarction, had a left bundle branch block, which would indicate a serious conduction defect and the existence of rather extensive heart disease.

Ventricular Rupture

Ventricular rupture was encountered in eight cases. The day of occurrence of the rupture, and the presence or absence of angina pectoris preceding it is tabulated in Table XIV. One patient had a history of previous infarction one year prior to his terminal illness. In no other instance was there a history of angina pectoris of longer than four weeks' duration. Wessler, Schlesinger, and Zoll[18] have emphasized that individuals having myocardial rupture are relatively free of antecedent coronary disease and unprepared for injury. They also observed that these patients had a significantly higher incidence of, (1) sustained hypertension during infarction, and (2) unusual effort during the last twenty-four hours of life.

TABLE XIV. VENTRICULAR RUPTURE

No.	Age	Sex	Date of Rupture	Type Infarct	Previous Angina Other Remarks
1	73	Male	? "Silent"	Anterior	No previous angina
2	47	Male	12th Day	Anterior	No previous angina
3	56	Male	6th Day	Anterior	Previous infarct 1 year before
4	59	Male	6th Day	Posterior	Angina 4 weeks, hypertension, obesity
5	53	Female	6th Day	Anterior (apex)	Angina 2 weeks, hypertension, obesity
6	38	Male	26th Day	Anterior	Angina 2 weeks, mural thrombi
7	60	Female	23rd Day	Anterior (apex)	Obesity, mural thrombi
8	66	Female	12th Day	Anterior	Hypertension, Obesity

Anticoagulant Drugs

Since anticoagulant therapy now occupies a prominent place in the treatment of myocardial infarction, it is thought appropriate to give here some detailed account of our employment of these drugs as well as our point of view concerning their use in the treatment of this condition. The larger part of our experience with this form of therapy has been gained with Dicumarol and to a lesser extent with heparin. However, since March 1, 1950, two new anticoagulant drugs have been under trial at the Henry Ford Hospital. These are Tromexan, which is a coumarin derivative, and Paritol, a synthetic, heparinoid substance. During this time eighty-five patients have been treated with Tromexan, and seventy patients have received Paritol. While 140 patients received Dicumarol as controls, ninety patients received Heparin.

Tromexan, whose chemical formula is 3,3'-carboxy-methylene-bis-(4-hydroxycoumarin) ethyl ester, has been under study in all cases of thromboembolic disease in which dicumarol has been used previously. It is a much more rapidly acting drug than Dicumarol and usually produces a therapeutic effect on the prothrombin time within eighteen to twenty-four hours, and at most, thirty-six hours. Its rapidity of action has made it difficult to stabilize patients on a daily dose. Some progress in this direction has been made by giving the drug in two divided doses, 12 hours apart. Since Tromexan is so rapidly excreted, its use in ambulatory patients has not been tried save in one case. It is our feeling that a longer acting drug is preferable for out-patient use. At present the extremely high cost of Tromexan compared to Dicumarol is another factor against its use over a long-term program.

Although Tromexan is reputed to be somewhat less toxic than Dicumarol its use is attended by the same hazards. Two of our patients have had serious, though not fatal hemorrhages. One had gastrointestinal bleeding. The other had pulmonary hemorrhage.

So far the only other untoward reaction accompanying Tromexan has been occasional nausea and vomiting. This can usually be controlled by dividing the dose to be given.

Paritol is a synthetic, heparinoid substance manufactured from kelp. Its chemical name is sodium poly-anhydro-mannuronic acid sulfate. It is given intravenously and produces an effect on

blood clotting within fifteen to thirty minutes, similar to Heparin. Although it must be given in larger doses than Heparin, its action is two to three times as long. We have been using a standard dose of 300 mg. to start and 200 mg. whenever the clotting time (Lee-White Method) drops below 20 minutes. This usually occurs twelve to fifteen hours after the initial dose. This drug has worked quite well and has the advantage that the patient need only receive injections twice daily. However, with the last few lots of the drug some disturbing reactions have occurred. The chief alarming feature, reported to us by other users has been a sudden drop in blood pressure. Four reactions have occurred in our study, none of which were accompanied by severe blood pressure drops. Our reactions were chiefly nausea, vomiting, back pain, some general collapse, and numbness and tingling in the fingers. Since this has only occurred with late batches of the drug, it may be due to impurities. It has since been recommended that the material be diluted from a 10 per cent solution to 5 per cent with the idea of reducing the amount of material given at one instant.

Paritol is not yet available for general use but should be much less expensive than Heparin and if the recent reactions can be overcome, ought to be a welcome addition to the therapy of thromboembolic episodes.

Contraindications for Tromexan are the same as those for Dicumarol. Paritol is contraindicated in any disturbance in kidney function associated with a rise in nonprotein nitrogen.

In connection with the routine use of anticoagulants in the treatment of myocardial infarction, Irving Wright, as a result of the statistical studies of the co-operating hospitals of the Committee for the Evaluation of Anticoagulants for the American Heart Association, has concluded that it is advisable to treat all patients with myocardial infarction in this manner. His recommendation has perhaps not met with unanimous support and interest has been aroused in this question as a result of two recent papers.

One was by Bresnick and his co-workers[3] in the *New England Journal of Medicine,* November 23, 1950, in which a considerable series of cases of myocardial infarction were treated in what he terms as average hospital practice using anticoagulants on alternate cases. The management of the anticoagulant was evidently left to the house staff and it is admitted that the prothrombin time was not adequately controlled. The results in this series showed no advantage for the cases treated with anticoagulants as compared with the controls. The only lesson that can be drawn from this series, in our opinion, is that the handling of anticoagulants in these cases is capable of producing good results if the problem is carefully and closely followed by one or two well-informed people, to wit, a competent careful internist, or an anticoagulant service, but if the drugs required are carelessly handled, it is obvious that the desired therapeutic effect will not be arrived at and moreover the hazards of the procedure may be enhanced.

A second paper of interest appeared in the *American Medical Association Journal,* February 10, 1951, on the indications for dicumarol in acute myocardial infarction by Henry I. Russek, Burton L. Zohman and LaVere G. White,[15] in which these authors propose a selective use of anticoagulants in patients with myocardial infarction. They cite that in the average first infarction, the expected mortality is only 8 per cent, and if the patient presents on the day of admission none of the following serious prognostic conditions: (1) previous myocardial infarction, (2) intractable pain, (3) extreme degree of persistence of shock, (4) significant enlargement of the heart, (5) gallop rhythm, (6) congestive heart failure, (7) auricular fibrillation or flutter, ventricular tachycardia or intraventricular block, or (8) diabetic acidosis, or other complicating serious disease states; that the probable mortality of these patients is very small, 2.45 per cent, and, therefore, they do not justify the hazard of anticoagulant treatment.

We would have serious objection to this method of procedure, however, for on reviewing our own material, it seems in the first place that our mortality from first infarctions has been 21.7 per cent. Again, the picture on the first day of admission may not necessarily enable one to predict freedom from serious complications in the remainder of the patient's stay. Also, it is worth stating here that in our own experience with anticoagulants, we have not yet had a death from the use of these drugs. Reviewing our thromboembolic complications, there was only one episode on the first day, but eight were catalogued on the second and fourteen on the third day. Again, of thirty-eight cases of auricular fibrillation devel-

TABLE XV. THROMBOEMBOLIC COMPLICATIONS

	1	2	3	4	5	6	7	8	9	10	After 10 Days
No Anticoagulants 142 Patients 166 Emboli Episodes	—	7	9	7	10	8	6	7	3	5	105
Dicumarol 120 Patients	—	—	—	—	—	—	—	—	1	—	2
Dicumarol & Heparin 87 Patients	—	—	—	—	—	—	—	—	1	—	3

oping the first week, thirteen were recorded on the first day and twenty-five developed afterward. In ventricular tachycardia, out of thirteen cases five developed on the first day, leaving eight for subsequent development. Also, concerning congestive failure which was accountable for a 57 per cent mortality in our series, while forty-three out of 105 developed in the first week were apparent on the first day, sixty-two of these cases developed subsequent to the first day. In other words, it seems a little unsafe to take it for granted that since on the first day serious complications have not made their appearance that they will not develop subsequently.

Our present point of view regarding the use of anticoagulants will, therefore, be that of a continued recommendation for use, in all cases of myocardial infarction treated by a careful, competent internist or in a hospital where there is a capable anticoagulant service; unless some contraindication exists to this form of therapy as in liver or kidney disease. At present we feel that our most useful anticoagulant is Dicumarol and that parenteral anticoagulants are not necessary unless there is some reason why the drug may not be given by mouth. Tromexan is useful and effective, but has the disadvantage of high cost, and while not so many instances of bleeding are encountered in its use, it is not free from the hazard of hemorrhage.

Discussion

This study concerns a large number of patients with acute myocardial infarction as observed in the dynamic city of Detroit, and it may offer some points of interest to be compared with similar experiences in other centers.

The data presented indicate a fairly even distribution of cases throughout the months of the year, and slightly increased number in November (ninety-five as compared to eighty-six in September, the next highest month).

In this series the cases were somewhat more preponderantly male than in several previously reported series.

The peak incidence in men occurred in the sixth decade, while in women, it was in the seventh. Several cases occurred in men in the third decade, but in women only two before the fourth. At the peak incidence of the disease, female mortality was higher than male, 33 per cent compared to 17.9 per cent, though at seventy and beyond the mortality rate curve is the same in both sexes. The mortality rate in the females in the 6th decade was strikingly higher than that in males in the 6th decade.

Hypertension appeared to have no bearing on immediate mortality and obesity did not increase the immediate hazard.

Preceding angina pectoris was present in about one-half the cases but had no effect on the mortality rate. However, since 15 per cent of this group had pilot angina of less than one month's duration, a series of thirty-nine such patients were hospitalized and placed on anticoagulants for a two weeks' period. It is believed that while relief from pain was a prominent feature, that the period of anticoagulant therapy was insufficient and should be prolonged in this group for a longer period and then should be tapered off instead of being abruptly ended.

This review suggests that in men a history of a previous myocardial infarction adds considerably to the immediate hazard of a new infarction. An insufficient number of women having such history were studied to permit definite conclusions regarding them.

While the incidence of diabetes seemed to increase the tendency to myocardial infarction in women, the prognosis in this group for immediate mortality was not greater than in the nondiabetic female.

The benefits of anticoagulants in decreasing the

incidence of thromboembolic episodes and lowering mortality was evident and was much the same as in other series.[21] Because of the significant number of early thromboembolic episodes encountered, there seemed to be confirmatory evidence that the immediate initial use of heparin was justified to overcome the lag in the Dicumarol effect; but in making a comparison of cases in which heparin was added initially, with another series using Dicumarol alone, there seemed to be no advantage gained by the use of heparin over the group treated by Dicumarol alone. Avoidance of the use of a parenteral anticoagulant spares the patient both annoyance at a time when rest is of paramount importance, and also considerable extra expense later.

Experience has been reported with two newer anticoagulants, Tromexan for oral administration and Paritol for parenteral use.

Emphasis is placed on the need for careful and experienced control in the management of anticoagulant drugs in order to obtain best results and avoid the danger of serious bleeding.

The treatment of all cases of myocardial infarction with anticoagulants is recommended unless contraindication to their use is present.

The most vulnerable individual, from the mortality standpoint, seems to be the female with anterior infarction. In general, the immediate prognosis for anterior infarction is more serious than posterior, but our previous report[16] indicated that the over-all mortality after the elapse of five or more years shows the outcome to be the same.

Paroxysmal ventricular tachycardia was an extremely ominous development. The difficulty of handling it with ordinary doses of quinidine has led us recently to use considerably larger doses. We control the administration of the drug by frequent direct-writer electrocardiograms. Intravenous quinidine (quinidine lactate) has been successful in several instances where oral quinidine could not be used or was unsuccessful.

The use of prophylactic quinidine in patients showing premature beats deserves further evaluation since a comparison of mortality rates in such patients who had received the drug with an equal number who did not, shows no decided advantage for either group.

The indication or contraindication for digitalis in cardiac failure complicating myocardial infarction has long been one about which there was no general agreement. A study of these figures would indicate that these patients have a somewhat better chance of survival if they are digitalized than if they are not. Therefore, the use of digitalis in patients with myocardial infarction who show evidence of serious congestive cardiac failure is recommended.

The fact that all but one of the cases of ventricular rupture occurred in individuals who had had no history of previous coronary occlusion, or longstanding angina, does suggest that these patients were less well able to survive the shock of sudden interruption of a portion of the coronary artery circulation without more extensive and serious muscle damage than those in whom previous coronary narrowing or occlusion may have led to the development of an increase in the anastomotic circulation of the coronary system.

Summary

1. A review of the clinical records of 920 cases of acute myocardial infarction has been presented.

2. The mortality rate was found to be influenced significantly by the sex of the patient, the age at onset, the site of the myocardial infarction, the degree of leukocytosis, the presence of thromboembolic complications, the presence of cardiac arrhythmias, the presence of congestive heart failure, and the history of a previous myocardial infarction.

3. No influence on the mortality rate was found when hypertension, angina pectoris, diabetes mellitus, and obesity were present, although they were encountered frequently in this group.

4. The various therapeutic measures attempted were tabulated. Anticoagulant therapy had the most distinctly favorable influence on the mortality rate. Dicumarol alone seemed as effective as dicumarol plus initial heparin in preventing thromboembolic episodes. Digitalis seemed beneficial in treating congestive heart failure; certainly no distinctly unfavorable effect was evident. Quinidine in adequate doses influenced favorably the outcome of a few cases of ventricular tachycardia. Neither digitalis nor quinidine appeared to be particularly beneficial in the conversion of auricular fibrillation to sinus rhythm.

5. The incidence of ventricular rupture and discussion of contributing factors preceding its appearance are presented.

6. The high incidence of premonitory pain occurring for a few days to four weeks prior to acute myocardial infarction was striking in this series.

Acknowledgment

Gratitude is expressed to Drs. John W. Keyes and Ralph M. Denham for their assistance in the preparation of this paper.

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Complication of Coronary Occlusive Disease

By Myrton S. Chambers, M.D.
Raymond E. Johnson, M.D.
Michael C. Kozonis, M.D.

Flint, Michigan

TO DECIDE what is normal and what is pathological depends upon what is conspicuously familiar. This is particularly true of the complications of coronary occlusive disease. The recognition of these complications is of paramount importance: first, for the sake of definitive therapy, and second, the complication may be the initial manifestation of the coronary occlusive episode, whose relationship to the acute coronary occlusion may or may not be recognized.

The medical literature contains many reviews of isolated complications or categorically related complications of this subject. However, there are few, if any, complete discussions of the complications. It is the purpose of this paper to review as completely as possible the potential complications of coronary occlusive disease.

Arrhythmias

Arrhythmias are a frequent complication of coronary occlusive disease. However, certain factors such as anoxemia, decreased nutrition of cardiac muscle, disturbed autonomic nervous reflexes, increased irritability of the myocardium, anatomical lesions and heart failure are recognized as definite etiological factors in production of arrhythmias. All of these are present to a high degree in coronary artery occlusive disease. The onset of an arrhythmia in patients with coronary occlusive disease may be of considerable diagnostic significance. Occasionally, it is the initial, perhaps the only, sign of the presence of an acute coronary occlusion.

The most commonly encountered arrhythmias in coronary occlusive disease are premature beats, usually ventricular, which occur in about 25 per cent of the cases. Extrasystoles are usually transient in nature but in some cases may be permanent. They may herald the onset of a more serious arrhythmia. Ventricular extrasystoles may be subsequently followed by paroxysmal ventricular tachycardia.

Master[15] analyzed 300 acute coronary occlusive cases as to the type and incidence of arrhythmias. Excluding premature beats present in 25 per cent of the cases, 14 per cent of the total cases demonstrated an arrhythmia. Auricular fibrillation occurred in 7.3 per cent, auricular flutter in 1 per cent, paroxysmal supraventricular tachycardia and ventricular tachycardia in 3 per cent. A higher incidence of arrhythmias were noted in the older age groups, in women and in patients with cardiomegaly as a result of previous hypertension. Heart failure was more common in this group of cases. Half of all the encountered arrhythmias appeared in the first two days and the majority during the first week. The majority of the arrhythmias were transitory. The mortality rate was 38 per cent in this group as opposed to 26 per cent in cases without arrhythmias. There was a particularly high mortality associated with the most commonly encountered arrhythmia, other than extrasystoles, namely, auricular fibrillation.

Askay and Neurath studied the prognostic significance of auricular fibrillation in coronary occlusive disease. An analysis of 1247 coronary occlusive cases admitted to Los Angeles County General Hospital was done and 84 cases demonstrated auricular fibrillation. The mortality rate of the latter group was 79.8 per cent as opposed to the whole group mortality rate of 51.5 per cent. The mortality rate was 58.6 per cent in the transitory auricular fibrillation group and 89.4 per cent in the persistent cases. In cases where auricular fibrillation preceded the acute coronary occlusion there was a 79 per cent mortality.

Auricular flutter, although not as commonly encountered as auricular fibrillation, was associated with a mortality rate of 66 per cent. Levine and Rosenbaum[13] encountered auricular flutter in 2.5 per cent of their cases of coronary occlusive disease. Auricular flutter was a more persistent arrhythmia than auricular fibrillation.

The occurrence of auricular arrhythmias during the course of coronary occlusive disease cannot be explained on an anatomical basis since the arteries involved and the anatomical lesion itself are usually in the ventricular myocardium, although there have been some isolated reports of auricular infarction. However, there have been no studies of auricular infarction in regard to the in-

From the Internal Medicine Section, Hurley Hospital, Flint, Michigan.

cidence and type of arrhythmias encountered. Klainer and Altschule[12] maintain that a considerable volume of evidence indicates that experimentally produced auricular fibrillation in animals is due to increased vagal activity. There is no definite proof of this supposition. Sixty-four per cent of their patients with paroxysmal auricular fibrillation associated with coronary occlusion showed prolongation of the PR interval. Less than 16 per cent of Master's[17] patients showed PR interval prolongation. Explanation of the prolonged PR interval in coronary occlusive disease is not known. Some say it is anoxemia; others, a result of increased vagal activity. Klainer[12] feels that there is a higher incidence of auricular fibrillation and flutter in those cases of coronary occlusion who have exhibited increased PR intervals.

Paroxysmal supraventricular tachycardias and paroxysmal ventricular tachycardias are encountered rather infrequently in the course of coronary occlusive disease. Ventricular tachycardia, although occurring rarely, may be a forerunner of ventricular fibrillation and death. For this reason, its prompt recognition and treatment are most essential. All of Levine and Rosenbaum's[13] cases demonstrating paroxysmal ventricular tachycardia had infarctions located on the anterior aspect of the myocardium.

Conduction Disturbances

Various degrees of heart block are not infrequent as a complication of acute coronary occlusive disease. Simple prolongation of the PR interval was observed by Masters et al[17] in 16 per cent of some 335 cases of acute coronary occlusive disease. In addition, second degree partial and complete heart block was noted in 3.2 per cent of their cases. The sudden onset of an increased PR interval and heart block may be the first and only sign of coronary artery occlusive disease. Klainer[12] believed that cases demonstrating increased PR interval and heart block were associated with an infarction of the posterior portion of the intraventricular septum and posterior surface of the left ventricle as a result of right coronary artery occlusion. He felt that the presence of profuse anastomotic channels in the intraventricular septum around the AV nodes prevented the more frequent occurrence of heart block and also effected its remission when it did occur.

Intraventricular conduction disturbances are found more frequently in coronary occlusive disease than the tachycardias or complete heart block. Intraventricular block was found in 12 per cent of the cases cited in the literature. Higher figures, up to 28 per cent, were observed in series of cases later autopsied, perhaps indicating an increased mortality rate associated with intraventricular block. Left bundle-branch block was more frequent than right bundle-branch block. It was felt that the sudden appearance of defective intraventricular conduction, transient or permanent, should suggest the possibility of a recent coronary artery occlusion even when typical clinical or electrocardiograph evidence was lacking, particularly when associated with shock or heart failure. This was especially true of left bundle-branch block because the conduction disturbance in most cases renders impossible the diagnosis of infarction by the electrocardiogram. Bundle-branch block at times may be the only evidence that the patient sustained a coronary occlusive episode in the past. Defective intraventricular conduction was more commonly found in patients who had long-standing hypertension, cardiac enlargement, congestive heart failure and previous infarction. Intraventricular block was usually permanent while partial or complete AV block and other arrhythmias were most often temporary. The mortality rate of the cases demonstrating intraventricular block was 42 per cent as compared to 23 per cent in cases with normal conduction. There was no evidence to indicate that left bundle-branch block was of more serious import than right bundle-branch block.

Complete heartblock is rarely encountered in coronary occlusive disease. Schwartz[19] reported on fifteen cases of complete heart block associated with coronary occlusive disease. In all Schwartz's cases there was an antecedent hypertension present. Four of his cases succumbed in an average of four days and the remaining lived at least twenty-six months. Four of his cases reverted to a normal rhythm.

The anatomical basis for complete AV block was septal infarction in 80 per cent of the patients. Kerr[11] feels that heart block is usually associated with occlusion of the right coronary artery which in 90 per cent of the cases supplies the AV node and the bundle of His by the ramus septi fibrosi. Since this branch arises almost at the origin of the right coronary artery, proximal to the

usual site of thrombosis, the blood supply to this vessel is infrequently occluded. Because of the rich anastomosis between the left and right coronary arteries in the region of the AV node and bundle, complete heart block is most likely when both vessels have been occluded. In most cases of heart block autopsy reveals multiple occlusions with massive infarction usually involving the intraventricular septum. As a result, impaired intraventricular conduction is often associated with complete heart block. It is noteworthy that, in thirteen of the fifteen patients with heart block following acute coronary occlusion described by Schwartz, there was in addition intraventricular block. Masters, as does Kerr, feels that the cause for both the AV and intraventricular block in coronary occlusive disease is the same—occlusion of the specific artery to the septum with infarction of the region of the AV node and its branches. Septal infarct which may be the cause of the bundle-branch block may extend high enough to involve the AV node or bundle or, as suggested previously, the infarct may involve both bundle branches simultaneously and produce defective atrioventricular conduction.

It is interesting that the first case diagnosed as coronary occlusion at the bedside and confirmed at autopsy in 1876 by Dr. Hassimer had a very slow heart rate, eight beats per minute. It is almost certain that complete heart block existed in this first cited case of coronary occlusive disease. The first clinically recognized case of coronary artery occlusion associated with complete heart block and Stokes-Adams syndrome was described by Levine in 1918. The Stokes-Adams syndrome characterized by syncope, convulsions and coma may appear after the development of complete heart block but usually only when the ventricular rate falls below forty. The incidence of Stokes-Adams syndrome after acute coronary occlusive disease is much lower than that of complete heart block. The recognition of this syndrome is most important since heroic measures are required immediately for prolongation of life.

Heart Failure

Right or left heart failure or combined heart failure may develop immediately, a week or month after the occurrence of an acute coronary occlusive episode. Heart failure may be either temporary or permanent in nature. Chronic left heart failure is characterized by recurrent episodes of paroxysmal nocturnal dyspnea, progressively increasing exertional dyspnea, cough, orthopnea, a pressure feeling in the chest, and the presence of râles at the lung bases bilaterally. This may result from the onset of acute pulmonary edema. Acute left ventricular failure may be present at the onset of the acute coronary occlusion and disappear in a few days to a few weeks. There have been cases of chronic left heart failure persisting for several years. Levine and Rosenbaum[13] reported an incidence of 28 per cent of congestive heart failure in their patients. Nineteen per cent of these patients were in mild failure and 9 per cent in severe failure. The majority of the cases encountered were associated with anterior infarction, bundle-branch block and auricular fibrillation. Prolonged left-sided failure often terminated in combined failure.

Right-sided failure characterized by hepatomegaly, increased venous pressure and peripheral edema usually appeared later in the course of coronary occlusive disease. However, it may be the initial symptom in patients who have had previous coronary occlusive disease or previous severely damaged myocardium. Twenty per cent of the cases of acute coronary occlusive disease die in heart failure, usually of the combined type. The recognition and management of heart failure in acute coronary occlusive disease is most important.

Angina Pectoris

Angina pectoris is found in about 70 per cent of the cases of coronary occlusive disease prior to the onset of the acute coronary occlusive episode. There is no higher incidence in patients sustaining anterior than in those sustaining posterior infarction. It is more commonly found in cases of defective intraventricular conduction. Those cases demonstrating angina previously had a mortality rate less than those who did not have angina. It was believed that they had developed a collateral circulation with their angina and that the sudden occlusion of the blood supply to the heart did not place the patient in as precarious a situation as those cases who did not have angina previously. Occasionally patients, who have suffered from angina pectoris, lose their pain after an attack of acute coronary occlusive disease, probably because the anoxemic muscle responsible for the pain is no longer viable. However, much more frequently

the attacks of angina pectoris on effort or at rest persist after acute coronary occlusion and became more severe. In about half the cases where angina pectoris was absent before the acute coronary episode it subsequently developed after recovery from the acute episode. Many persons who had had angina previous to their myocardial infarction noted that their attacks were more easily precipitated and more persistent following their acute coronary episode.

Thrombo-embolic Phenomena

The exact incidence of thrombo-embolic phenomena in coronary occlusive disease is unknown and varies widely in the reported series from 9 to 60 per cent. Thrombo-emboli may arise secondary to any of the following: endomural thrombi, shock, or phlebothrombosis of the lower extremities or pelvis. Some believe that thrombo-embolism is more often a result of phlebothrombosis and coronary shock than it is of endomural thrombi.[5] Whenever the infarcted area lies in apposition to a heart chamber, the propagation of an endomural thrombus is possible. The continuous agitation of the heart may fragment the thrombus to form an embolus which may be carried peripherally. The incidence of endomural thrombi reported in the literature is 37 to 44 per cent. The incidence of endomural thrombi in each chamber is roughly proportional to the frequency of infarctions in the wall of that chamber, thus they occur in approximately this order of decreasing frequency: left ventricle, left auricle, right auricle and right ventricle.[14]

Margulies' series of forty-eight instances of thrombo-embolism in coronary occlusive disease demonstrates that extracardiac thrombo-emboli can be traced to causes other than endomural thrombi, that all endomural thrombi do not cause peripheral embolism and that an endomural thrombus can be present with a peripheral thrombo-embolic phenomenon without being incriminated as the etiological factor.[14] In only thirty-four of these cases were there endomural thrombi, and of these, only twenty-one were on the proper side to have caused the embolism. Unless a septal defect or other shunting mechanism is present, emboli from the left side of the heart enter only the greater circulation, and those from the right side of the heart only the lesser circulation. Even if shunting mechanisms can be excluded, a distinction must still be made among those thrombo-embolic phenomena of the greater circulation, as to whether they arose from the left-sided endomural thrombus or from the coronary shocking mechanism; and similarly in those of the lesser circulation as to whether they arose from shock, a right-sided endomural thrombus or from a phlebothrombosis. The lungs are most frequently involved in extracardiac thrombo-embolic phenomena originating from an endomural thrombus.[8] Such involvement is two to three times more common than that of the next most frequently affected organ, the kidney. While it is undoubtedly true that pulmonary lesions are a more frequent cause of death than is usually recognized, such involvement is more often secondary to phlebothrombosis than it is to endomural thrombi. Thus, in Margulies' series of twenty-eight pulmonary emboli, only five could be attributed to endomural thrombi. In the other twenty-three patients, the pulmonary emboli were all secondary to a phlebothrombosis. Other lodgments of emboli are in approximate order of decreasing frequency: the brain, spleen, extremities and mesenteric vessels. The most frequent site of lodgment in the extremity vessels was in the femoral artery at the origin of the profunda branch. The most frequent site of mesenteric lodgment was in the superior mesenteric artery presumably because this vessel branches less sharply from the aorta than does the inferior mesenteric artery. Prior to the introduction of anticoagulant therapy such thrombo-embolic phenomena were either the direct cause of or a contributing factor in 25 per cent or more of the myocardial deaths. Subsequent to the introduction of this therapy there has been an apparent reduction in deaths by one-third, and of complications by one-fourth.[22] This effect has been produced largely by reducing the thrombo-embolic phenomena. The state of shock accompanying an acute myocardial infarction may well precipitate a peripheral thrombosis, especially in arteriosclerotic vessels. Dozzi has emphasized how frequently unsuspected myocardial infarctions are found at the autopsy of hemiplegic patients and suggests that all such patients should be suspected of having a myocardial infarction.[5] The shock state of either lesion may precipitate the other.

Ruptures of the Heart

Although the term rupture of the heart could be used to refer to a rupture of any of the struc-

tures of the heart, by common usage it applies only to a rupture of the ventricular wall. Ruptures of the intraventricular septum or of the papillary muscles are usually described as such. They are a complication of the acute massive infarction. The rupture usually occurs as a result of liquefaction necrosis of the infarction, probably during systole and especially at a time of exertion, since intraventricular pressure is higher in the erect position than in the supine position, and the cardiac output is greater. Ambulatory cardiacs are especially prone to such complications.[7] This was well demonstrated by the unusually high incidence of ventricular rupture following acute infarction found to occur in mental institutions, where the patients, because of their agitated states, did not co-operate in a rest regime.[10]. In a massive infarction more than one type of rupture may occur simultaneously.

Ventricular Rupture

The usual causes of ventricular rupture listed in order of importance are: trauma, myocardial infarction, ventricular aneurysm from either of these, abscess in the infarction site, and rarely the ulcerations of an endocarditis. Isolated instances of rupture due to dissection of the sinus of Valsalva, to echinococcic cysts and to malignancy have been reported. Ventricular ruptures due to myocardial infarction usually occur in the left ventricle, probably because infarctions are most frequent there. A concomitant hypertension is supposed to render a patient more prone to this condition. Death seems inevitable from the resulting cardiac tamponade. Two hundred and fifty cc. of blood is sufficient to cause a tamponade, but the blood may be present in amounts up to one liter. Death is not always instantaneous, however, since autopsy studies have revealed the presence of organized clots near the tear. Ventricular rupture usually occurs within the first two weeks after the acute infarction, especially between the second and the tenth day.

Perforation of the Intraventricular Septum

Although perforation of the intraventricular septum is undoubtedly often overlooked, it is much less common than rupture of a ventricle. Despite a characteristic clinical picture, it is very rarely ever recognized during life. It is usually secondary to a myocardial infarction; rarely it is due to ulcerations of a bacterial endocarditis. In contrast to the congenital type of intraventricular septal defect which occurs high up in the thin portion of the septum, these occur in the lower thicker muscular portion. The defect that occurs is usually single and varies in size from pinpoint to 6 cm. in diameter. The prognosis is very grave and the patients die usually within a few weeks to months, although survival up to five years has been reported.

This is not so much due to the increased load thrown on the damaged myocardium by the altered hemodynamics as it is to the massiveness of the infarction. It may result from an infarction of either the left or the right coronary artery, although it is more commonly due to involvement of the left coronary branch. In neither instance, however, will perforation occur unless the circulation in the other artery is so compromised by sclerosis as to be unable to render adequate collateral circulation. The clinical picture is quite definite. The myocardial infarction is followed within one to two weeks by the sudden appearance of a loud systolic murmur at the left of the sternum in the fourth and fifth interspace. These murmurs are usually situated lower than those of Roger's disease and are often accompanied by a thrill. In general, the loudness of the murmur is inversely proportional to the size of the perforation. A murmur may be absent, however, irrespective of the size of the aperture, if the myocardial contractions are weak. Unless forward failure should supervene cyanosis does not occur since the shunt is from the arterial to the venous side. The blood pressure and pulse are similar in type to those encountered in aortic stenosis. The electrocardiogram is characteristic only of the type of myocardial infarction producing the lesion. Conduction defects are unusual probably because the lesion is in the lower part of the septum where the conduction fibers are widely dispersed. The diagnostic aspect of the electrocardiogram is a gradual development of a right axis deviation, concomitant with the right ventricular hypertrophy produced by the arterial venous shunt. The most confusing problems in the differential diagnosis are: rupture of a papillary muscle, a condition which will be discussed subsequently, and a sudden weakness and dilatation of the right ventricle. This latter condition itself may be a complication of myocardial infarction. The dilatation may lead to a relative tricuspid insufficiency producing a sys-

tolic murmur. This murmur is, however, without a thrill and is loudest in the tricuspid area. Other signs are pulsation of the liver and neck veins.

Rupture of the Papillary Muscle

Rupture of the papillary muscle is a cause of sudden death.[18] It most frequently follows myocardial infarction but other causes are trauma, syphilis, tuberculosis and puerperal sepsis. It may apparently even occur spontaneously. The rupture may very rarely occur in the right ventricle, it usually involves the posterior papillary muscles of the left ventricle, and less often the anterior papillary muscles of the left ventricle. The rupture results in a sudden insufficiency of the mitral valve and this alteration of hemodynamics produces a harsh systolic murmur and an acute severe left heart failure with pulmonary edema. This murmur may lead to the confusion of this condition with a rupture of the intraventricular septum. However, the murmur of the ruptured papillary muscle is usually more apical in distribution and the circulatory alterations differ.

Infarction of the Atria

Infarction of the atria is of interest since it not infrequently gives rise to atrial perforation causing cardiac tamponade which clinically simulates ventricular rupture. An infarction of the atria is usually associated with other infarctions; it rarely occurs alone. It is easily overlooked at autopsy but should be suspected if an atrial thrombus is observed, since such thrombi are associated with 80 per cent of the atrial infarctions. The right atrium is involved most frequently. The causes of this condition are: myocardial infarction, periarteritis nodosa, occlusion of a congenital single coronary artery, and an ulcerative endocarditis. Clowe states that cardiac tamponade occurring under the age of forty is more commonly from atrial rupture, whereas, that occurring after the age of forty is more commonly from a ventricular rupture.[4] The blood released by the rupture of an atrial infarct usually enters the pericardium; however, at times it may enter the pleural cavity. Although the clinical picture is that of ventricular rupture, one should suspect this condition in a patient who has changing atrial arrhythmias or in whom the electrocardiogram reveals alterations in the size of the P waves or AV block.

Abscess Formation in the Infarction Site

This is a rare complication usually seen only in the elderly patient.[20] The incidence reported in autopsy studies varies between 0.2 and 0.56 per cent. Ante-mortem recognition of this condition is almost impossible since its clinical characteristics are obscured by the more dramatic ones of either the infarction or its other complications.

Abscess formation in infarctions is usually secondary to a staphylococcic bacteriemia; however, it is possible that a septic embolus could cause an infected myocardial infarction directly.

The bacteriemic theory of origin is supported by the almost constant finding of similar organisms in the lungs and other organs.

The occurrence of such an abscess should be suspected in any debilitated patient with myocardial infarction, since debility from any cause predisposes to a bacteriemia. One should be especially suspicious in the presence of pneumonia or systemic infection, since these conditions may be either the cause or result of a bacteriemia.

Antibiotics and chemotherapy are indicated since abscess formation interferes with the healing of the infarction and abscessed infarction sites predispose to cardiac rupture.

Cardiac Aneurysms

Cardiac aneurysm implies only ventricular aneurysm. However, more properly, it should include both ventricular and septal aneurysms.

Ventricular Aneurysm

Ventricular aneurysm is a mechanical result of the fibrous transformation of the myocardium occurring secondarily to myocardial ischemia.[2] White says there is some degree of cardiac aneurysm in every myocardial infarction. The aneurysm begins as an acute lesion, and if it does not rupture, soon becomes a chronic lesion. If the scar is strong enough, no bulging will occur; however, if this is not the case a sacculation of varying size will develop. Pleural-pericardial adhesions about the lesion, or the formation of a thrombus within the saccule may so reinforce the wall as to prevent a rupture. The thrombus formation is, however, not innocuous since it may give rise to peripheral emboli. The most frequent site of occurrence is at the apex of the left ventricle, or in the anterior wall just above the apex. Myocardial infarctions are more common in the left ventricle, and the

wall in this part of the ventricle is the thinnest and most removed from the blood supply. The usual cause of this lesion is myocardial infarction. Other causes are: trauma, gumma, ulcerative endocarditis and abscess or cyst of the heart wall. The usual causes of death are: rupture with cardiac tamponade, cardiac failure and emboli from intramural thrombi. The condition is only rarely manifested by any diagnostic clinical signs. Adhesions frequently immobilize the apex and tenderness is present at this site. This fixation may not be obvious, however, since the left border may displace and simulate the apex. The precordial impulses may be weak, although the heart is contracting strongly. Frequently the pulse and the cardiac sounds may be weak, despite a diffusely heaving precordium and cardiac enlargement. Coexisting hypertension does not preclude an aneurysm. There may be two palpable apical impulses, that of the true apex and that of the aneurysmal sac. The heart failure that may occur in this condition is not peculiar. It is, however, difficult to effect recompensation in such a heart and repetitive failures and pulmonary infarctions are common. In summary, the usual clinical picture includes a myocardial infarction, congestive failure, a weak first heart sound, cardiac enlargement and somewhat less often a diffusely heaving precordium.

Since the clinical findings are so indefinite, x-rays, especially with multiple views, may be of value. With such views the aneurysm can be directly visualized on all but the diaphragmatic, hepatic and posterior cardiac surfaces. The aneurysmal dilatation may be of a diffuse type or of a localized bulging type. The presence or absence of aneurysmal pulsation is dependent on the thickness of the wall and the presence or absence of an intra-aneurysmal thrombus. Kymography is an other x-ray procedure of value. At times the wall surrounding the aneurysmal scar may hypertrophy and thus overhang the scar and be mistaken for the aneurysm. The aneurysmal wall may be calcified. An important fluoroscopic sign is diminished systolic contraction in the aneurysmal zone. Corroborative evidence of the presence of an aneurysm is the fixation of the apex due to adhesions. The electrocardiogram has no characteristic pattern although an R ST elevation persisting long after the acute myocardial infarction episode has subsided has been attributed to the presence of an aneurysm.

Septal Aneurysm

Rarely an infarction may involve the septum and the process arrest short of a septal perforation, thus leaving the patient with a septal aneurysm. One case has been reported in which the patient had both a ventricular and a septal aneurysm.[6] Although the clinical picture is usually not characteristic, it might simulate the Bernheim's syndrome. The bulging septal wall could interfere with the venous return and a picture of right heart failure would appear without the preceding occurrence of pulmonary congestion.

Myocardial Calcification

Calcification never occurs in a healthy myocardium, so it is possibly a protective measure to prevent a myocardial rupture.[3] Such calcification may be part of a generalized metastatic calcinosis, but in its absence may still deposit at the site of myocardial damage. There have been rare instances reported in which the salts were reabsorbed and actual bone deposited. When looked for, such calcification may be quite evident on x-ray.

Shoulder-hand Syndrome

The shoulder-hand syndrome, Sudeck's atrophy and causalgia are all variations of a reflex dystrophy.[9] It has long been recognized that such dystrophies occur after trauma. Recently they have been reported in the shoulders and hands from causes other than trauma. The clinical picture in all, however, simulates the posttraumatic condition. Other causes are: myocardial infarction, myocardial insufficiency, posthemiplegic states, postherpetic states and cervical osteoarthritis. They have been noted where the etiologies were mixed and in instances where the etiology was not determinable. The search for a common relationship among such widely varied lesions has led to the theory of the internuncial pool. It is thought that afferent impulses resulting from the tissue insult in any of the above conditions reaches the extensive network of interconnecting neurons in the central grey matter of the spinal cord which extends over many segments. At these levels potential pathways are formed so that the afferent impulses may reach the motor neurons of the sympathetic or anterior horn cells. The efferent impulse then gives rise to musculospastic or vasospastic changes which lead to the clinical syndromes of the reflex dystrophies. In the past,

there have been sporadic reports of the association of cardiac disease, especially myocardial infarction, with painful vascular and trophic changes of the shoulders and hands. Probably many infarctions are followed by some degree of ischemia of one or both upper extremities. Most of these changes are transient and completely reversible, others may persist in such a degree as to give rise to slight annoyance. Some have estimated that as many as 20 to 25 per cent may suffer irreversible trophic changes. Although the syndrome is in many instances initiated with shoulder pain, especially on the left, the lesions may be bilateral or occur separately on either side. They may also begin in the hands, they may involve any combination of the shoulder and hands or they may occur as a single lesion. In certain instances, the symptoms have suggested that the lower extremities may at times also be involved. The atrophy of disuse which occurs in the immobilized patient, the hypotension and decreased cardiac output often associated with left ventricular failure, which may follow an infarction, are contributing factors. That they aid materially in the production of the syndrome may be inferred from the close correlation between the severity of both the syndrome and the myocardial damage. Obviously, the worse the myocardial status, the more prominent are these contributing factors. However, it is also true that the more severe and lasting is the myocardial damage the more severe and lasting is the reflex vasospasm. The onset is with pain in the hands and shoulders, frequently of a painful arthritic nature. This usually follows the acute infarction by three weeks to four months. Other than the occasional case of shoulder involvement the pains are not related to angina. The hands often undergo changes which clinically are much like those of Raynaud's syndrome. Initially, they may be stiff and swollen with a nonpitting edema. After a time, the swelling subsides but the pain and stiffness persist. The skin which had become smooth, tight and overdistended now becomes thickened and dull. The joints become apparent as the soft tissues atrophy. This gives rise to cold, withered, wooden fingers with a variable functional loss, to which the name posttraumatic sclerodactylia has been applied. Various color changes and paresthesias have been reported. The underlying bones show a Sudeck-type atrophy. These atrophic changes may progress for some three to eleven months after the acute infarction and actual Dupuytren's contractures may result.

At times comparable to the changes in the hands, fibrosis and atrophy occurs in the shoulders leading to varying ankylosis. The syndrome usually follows infarction but it can follow severe angina complicated by severe myocardial insufficiency.

The prognosis for life is that of the cardiac lesion. The severity of the disability produced and the frequency of occurrence of the syndrome are proportional to the seriousness of the cardiac insult. Persistent myocardial insufficiency perpetuates and aggravates the syndrome. The acute and early trophic stages are reversible, the later stages irreversible. In general, the better the myocardial function the better the prognosis for recovery.

Conclusion

This review of the complications of coronary occlusion has been presented in order that the reader may become acquainted with these complications and their clinical significance from a diagnostic, prognostic and therapeutic standpoint.

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Some Observations on the Rheumatic Fever Control Program of the Michigan State Medical Society

By Leon De Vel, M.D.
Medical Coordinator
Grand Rapids, Michigan

THE RHEUMATIC Fever Control Program of the Michigan State Medical Society was conceived in 1945 at a meeting of the Preventive Medicine Committee of the Michigan State Medical Society, when this committee became aware of the large number of rejections for cardiovascular disease reported by the Selective Service Boards. A large proportion of these rejections were for rheumatic valvular heart disease. It further developed upon closer study that many of the rejectees, while suffering the evident after-effects of rheumatic disease, were unable to give a past history of acute rheumatism; their original rheumatic episode had been such as to escape recognition, either by themselves or by their physician. The committee was also impressed by current general mortality statistics which showed rheumatic fever and rheumatic heart disease to be the principal causes of death from disease during the childhood period. A sub-committee was then appointed to study the problem and submit a plan to the Council of the Michigan State Medical Society on ways and means by which rheumatic fever might be combatted in Michigan. The sub-committee's plan for a state-wide program of education, diagnostic and consultation services, case-finding and follow-up was approved by the Council of the Michigan State Medical Society in July, 1945.

Objective

The ultimate objective of this as of any other rheumatic fever control program is the eventual eradication of rheumatic fever and its sequelae of heart disease. Such is not in prospect in the foreseeable future and will require a vast amount of further research into the fundamental causes of the disease. The research aspects of the rheumatic fever problem are therefore left to other auspices.

The immediate objective is to strive for the fullest application of our present considerable knowledge of the disease to the individual case or suspected case in order to provide the best care modern medicine has to offer at the earliest possible time. The Michigan Rheumatic Fever Control Program aims to gain the immediate objective through a plan of education—both lay and professional—and through its Rheumatic Fever Diagnostic and Consultation Centers for diagnosis, advice on management and follow-up.

Fundamental Principles

The fundamental principles governing the development of Michigan's Rheumatic Fever Control Program are aptly stated by the President of the Michigan State Medical Society in the following words: "The family doctor is the person best qualified for the care of the individual patient. This is the philosophy of the Michigan State Medical Society. All of its activities are directed to this end. A timely example of this is the Michigan Rheumatic Fever Control Program. It was established and has continued under the major premise that the family physician is and must remain the central figure in the plan. The program is beamed at the patient through the family physician. It is a highly specialized postgraduate undertaking whereby both physician and patient come to understand the total problem of the disease: the care, education, rehabilitation and job placement within the capabilities of the individual patient's heart. The physician—as the central figure—sees the whole patient and the whole problem. He brings to bear all the specialized services the community has to offer. The main purpose of the plan is the education of the physician in the intricacies of a disease which is not yet completely known, for from this improved understanding comes the best possible care of the patient."

Scope

In a double program of education and care it is fully realized that the problems faced by the rheumatic or cardiac child or adult are not exclusively medical. The additional needs, other than strictly medical, which should be met in the total care of the total patient are psychological, social, educational, and for rehabilitation, as summarized in Table I.

The conscientious physician who has the welfare of his patient at heart will act as principal adviser in care and management, and will, in many in-

TABLE I. THE NEEDS OF THE RHEUMATIC OR CARDIAC PATIENT ARE NOT EXCLUSIVELY MEDICAL

Needs	Purpose	Who Can Supply	Where
Medical Needs	For best modern medical care	Family physician Specialist Special nurse Visiting nurse Public Health nurse School nurse	Office Home Hospital Convalescent home Rheumatic Fever Center Visiting Nurse Association Board of Health School Nursing Service
Psychologic Needs	To aid in adjustment to chronic disease	Family physician Psychiatric consultant Occupational therapist	Office Home Hospital Convalescent home Child Guidance Clinic
Social Needs	To aid in social and economic adjustment	Social service worker	Hospital Social Service Community Social Service Mich. Crippled Children Comm. Voluntary Agencies Society for Crippled Children
Educational Needs	For normal schooling For preparation for a suitable job To prevent the need for rehabilitation	Teacher Special teacher Vocational expert	Board of Education Home teaching Special teaching Vocational Guidance
Rehabilitation	To re-train the individual to a job better suited to his limitations	Rehabilitation expert	State Rehabilitation Service Voluntary Agencies

The Family Physician is the Key Person in the Plan

stances, himself be able to meet all of his patient's needs. For the solution of the more difficult problems he will guide his patient to one or more of the many specialized agencies existing in every community to deal with special situations.

Finance

While the Rheumatic Fever Control Program of the Michigan State Medical Society is a voluntary one, depending on the cooperation and interest of physicians who are qualified in their special fields, and while these physicians contribute of their time and knowledge without compensation as their share in an educational and public health program undertaken by their Medical Society, there still remain certain expenditures to be met for administrative purposes: secretarial help, record forms, letterheads, postage, office supplies, the printing of pamphlets and circulars, including also the services of the Medical Coordinator appointed in 1949 to serve as a liaison agent between the Rheumatic Fever Committee of the Michigan State Medical Society and its Rheumatic Fever Centers and cooperating agencies. Funds to meet these administrative expenditures have been obtained from sources outside the Michigan State Medical Society. The Michigan Society for Crippled Children and Adults, Inc. (Easter Seals) was the major contributor during the first three years of the program. The major share is now contributed by the Michigan Heart Association, on the recommendation of its Program Activities Committee. See Table II for a statement of sources of funds for the five-year period, 1946 to 1950 inclusive.

TABLE II. FINANCING THE MSMS RHEUMATIC FEVER CONTROL PROGRAM
Five-Year Period: 1946 to 1950

Contributed By:	
The Michigan Society for Crippled Children and Adults Inc., (Easter Seals)	$58,140.14 (47.5%)
The Michigan Heart Association	59,927.03 (49.0%)
Michigan Arthritis & Rheumatism Foundation	4,500.00 (3.5%)
Michigan State Medical Society	No funds allocated**

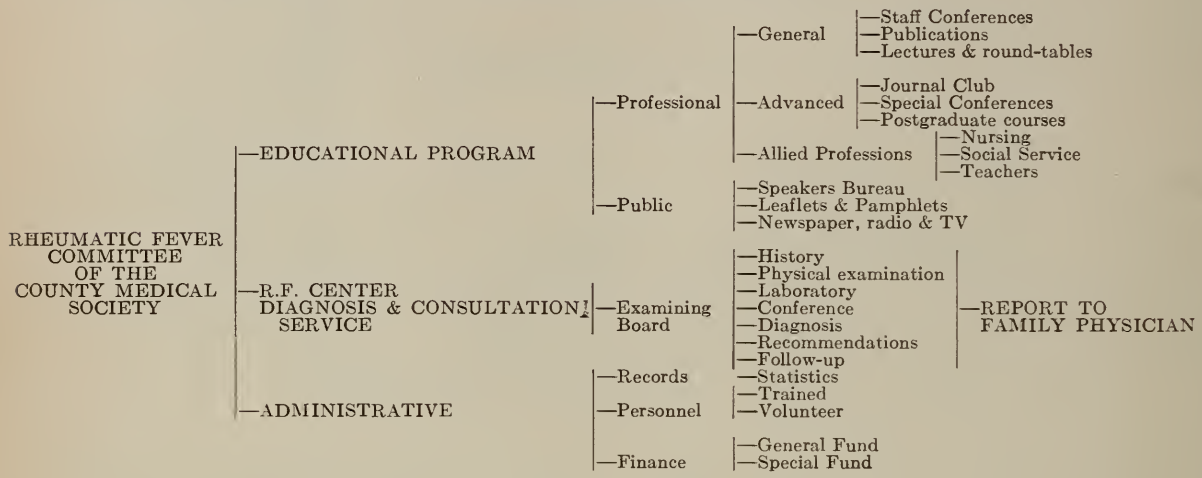
**Services only: Cooperating physicians have donated all services gratis.

Implementation

The Rheumatic Fever Control Program of the Michigan State Medical Society is essentially a decentralized activity based on the participation and cooperation of the several County Medical Societies located in cities which are the logical health and medical centers for their general geographic area, where qualified consultants, ancillary services and laboratory and hospital facilities are readily available for the operation of a complete program. Local Rheumatic Fever Committees are appointed by the President or the Board of Directors of the local County Medical Society, in cooperation with the over-all Rheumatic Fever Control Program of the Michigan State Medical Society. Funds for their administrative needs are supplied by the State Committee. Rheumatic Fever Committees are active in the following Michigan cities: Alpena, Ann Arbor, Bay City, Detroit,

Grand Rapids, Jackson, Kalamazoo, Lansing, Marquette, Muskegon, Petoskey, Pontiac, Saginaw and Traverse City. Local committees have not yet been organized in the following cities: Benton Harbor-St. Joseph, Battle Creek, Flint, Port Huron and Sault Ste. Marie. Each serves not only its own city, but also the immediately surrounding area. Table III is a schematic diagram of the activities of the Rheumatic Fever Committee of a County Medical Society, consisting of its educational, service, and administrative features.

TABLE III. MSMS COMMITTEE ON RHEUMATIC FEVER CONTROL ORGANIZATION PLAN FOR A RHEUMATIC FEVER PROGRAM



A better understanding of the nature, course and management of rheumatic fever and rheumatic heart disease by every practicing physician, specialist as well as general practitioner, constitutes the foundation upon which progress may be built. The professional educational program of the MSMS Rheumatic Fever Committee has consisted in the publication in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY of a series of comprehensive articles on the various aspects of the rheumatic fever problem, written by nationally known authorities under the sponsorship of the Michigan Heart Association and the Rheumatic Fever Committee of the MSMS; in the presentation of panel discussions or formal papers on the subject of rheumatic fever before County Medical Societies; in efforts to stimulate hospital staffs to take up the discussion of rheumatic fever and rheumatic heart disease more frequently and more comprehensively in their staff and clinicopathological conferences; in the preparation and distribution of an outline of rheumatic fever entitled "Doctor's Outline Manual of Rheumatic Fever"; in the preparation and distribution of Desk Reference Cards of rheumatic fever; in the creation of four Annual Postgraduate Fellowships for the Study of Rheumatic Fever, to be awarded annually by the MSMS Rheumatic Fever Committee to qualified applicants for attendance at regularly organized postgraduate courses in rheumatic fever and rheumatic heart disease approved by the Committee.

Education of the allied professions—nurses, social workers, occupational therapists, teachers—through formal lectures and conferences is being developed as rapidly as possible, largely under the auspices of local rheumatic fever committees, and as a means of establishing liaison between the different groups.

No rheumatic fever control program aimed principally at early recognition can be successful without a modicum of lay education. If a parent should fail to recognize certain early signs or manifestation of illness which would cause him to visit his family doctor, the world's best physician could not help the child. On the other hand there is clearly a danger of building up fear complexes which in some individuals may be a factor in the creation of psychological cardiac cripples. While a pamphlet on rheumatic fever for parents is available for distribution—through the various Rheumatic Fever Centers, in doctors' offices, and through the cooperation of the Michigan Department of Health—it is believed that education of the public is best applied by the method of direct contact: by the family physician in home and office; with parents in PTA Study Groups, Health Clubs and the like.

A series of colored transparencies with recorded commentary has been produced in cooperation with the Michigan Crippled Children Commission for presentation by competent persons to such audiences: the filmstrip gives some detailed information on the early signs that might indicate rheumatic fever and cause the patient to visit the doctor, on the procedure of examination by the physician, on the home treatment including bedside care, occupational therapy and home teaching, and on the Rheumatic Fever Control Program of the MSMS. The presentation stresses the hopeful aspects of the rheumatic fever problem.

Rheumatic Fever Diagnostic and Consultation Centers

The Rheumatic Fever Diagnostic and Consultation Centers established in the cities listed above are the feature project of the Michigan Rheumatic Fever Program, in cooperation with the local County Medical Societies and their Rheumatic Fever Committees. They constitute the control core of the project: from them radiate all other activities in the field of rheumatic fever control. They are to a large extent autonomous in determining the extent and scope of their activities but usually conform to the general pattern suggested by the MSMS Rheumatic Fever Committee.

The Rheumatic Fever Diagnostic and Consultation Centers accept patients for diagnosis and/or consultation only on direct referral by the family physician: for diagnosis of the suspected case or to establish the presence or absence of activity of the rheumatic process or to determine the exact nature of cardiac involvement; for consultation in regard to management: questions of drug therapy, of restriction of activity, attendance at school, surgical procedures, sulfa prophylaxis, convalescent home care, rehabilitation, referral to other agencies and other problems. Final report of the panel of examining consultants is rendered to the referring physician giving not only their diagnosis, but also specific recommendations for treatment, to be supervised and carried out by him. The family physician may continue to refer the patient to the Center for further observation and study if he so desires, and such is indeed frequently requested by the consulting panels in the more difficult cases.

Examination at the Rheumatic Fever Diagnostic and Consultation Center consists of a complete history, laboratory work including urinalysis, complete blood count, sedimentation rate, electrocardiogram and x-ray with fluoroscopy. Physical examinations performed by each of a three-man consulting panel — one internist-cardiologist, one pediatrician, and one otolaryngologist or other consultant. The examiners then hold a conference in which the case is fully discussed and final decisions and recommendations made, Table IV-*A* and *B* shows the two sides of the standard examination form adopted by the MSMS Committee.

The Rheumatic Fever Diagnostic and Consultation Centers perform an educational as well as a service function. Service to the family physician and his patient by offering diagnosis and consultation reasonably within the reach of every rheumatic or suspected rheumatic within the State. Education of the referring physician in the reports rendered to him, and of the panel of consulting examiners by affording them an opportunity to study in detail a number of problem cases which they otherwise would not have seen. An active rheumatic fever program in any community also creates a general awareness of the possibility of the disease which tends to bring people into their doctors' offices for examination.

Some Statistical Observations

Examination of the records of 614 admissions to two Rheumatic Fever Diagnostic and Consultation Centers reveals the following observations of interest:

Sex distribution: 51.5 per cent female; 48.5 per cent male.

Age distribution: Under age 16: 84 per cent; age 16 and over 16 per cent.

The family history was positive for rheumatic fever and/or rheumatic heart disease in the immediate family in 35 per cent. The family history in the rheumatic group was also positive in 35 per cent.

The 614 admissions had 908 examinations performed. Twenty-three per cent had more than one examination.

Rheumatic fever, all classes, was diagnosed 271 times or in 44 per cent of admissions. The rheumatic process was declared active in 95, quiescent in 127. Rheumatic fever could not be ruled out in 49 cases.

The cardiac diagnosis was mitral insufficiency

TABLE IV-A

MICHIGAN STATE MEDICAL SOCIETY—COMMITTEE ON RHEUMATIC FEVER CONTROL

REPORT of the GRAND RAPIDS RHEUMATIC FEVER DIAGNOSTIC and CONSULTATION CENTER,
129 East Fulton Street, Grand Rapids 2, Michigan

Name: Date: Sex: Date of birth: Number: Age:

Address:

Father's name & occupation: Weekly wage:

Physician's name & address:

DIAGNOSIS

Class. (check): Functional: I II III IV Therapeutic: A B C D E Poss: Pot:

Disposition (check): Home Hospital Convalescent Home Return

RECOMMENDATIONS

Activity:

Dietary:

Medication:

Other:

FAMILY HISTORY

Parents (age & health):

Siblings (age & health):

Rheumatic fever or rheumatism:

Heart Disease:

Other: Tbc., cancer, diabetes, etc.

PERSONAL MEDICAL HISTORY

PAST ILLNESSES:

Operations: Accidents: Immunizations:

DAILY DIETARY: No. glasses of milk: No. servings of meat: No. of eggs:
Raw veg.: Cooked veg.: Citrus fruit: Vitamins:

in 103 (38 per cent), mitral stenosis in twenty-three (8 per cent), other (A-V block, arrhythmia et cetera) in 16 (6 per cent). No cardiac lesion was found in 123 (45 per cent) of all cases diagnosed rheumatic fever (all classes).

Congenital heart disease was diagnosed in 31 (5 per cent).

A functional murmur was present in 217 (35 per cent) of all admissions.

The sedimentation rate was found to be elevated in 164 (27 per cent) of all admissions. When the diagnosis was rheumatic fever, the sedimentation rate was found to be elevated in 84 (31 per cent).

Electrocardiograms were made in 62 per cent of all admissions, and found abnormal by the usual standards in 11 per cent, abnormal including the corrected QT interval in 23 per cent. When the diagnosis was rheumatic fever the electrocardiogram was reported abnormal in 19 per cent and 49 per cent respectively.

X-ray and fluoroscopy were performed in 309

TABLE IV-B

PRESENT ILLNESS:

Checklist: Date of onset. Early symptoms. Sore throat. Fever. Pain. Joints. Nosebleed. Fatigability. Nervousness. Personality change. Appetite. Appearance. Loss of weight. Number of attacks or recurrences. Skin rash. Nodules. Previous diagnosis. Prior lab. reports. Other.

PRESENT SYMPTOMS:

Checklist: Fever. Joint pain. Muscle pain. Abdominal pain. Chest pain. Nose bleed. Appearance. Skin rash. Appetite. Loss of weight. Fatigue. Shortness of breath. Nervousness. Emotional instability. Other.

MEDICAL EXAMINATION

Temp.: Pulse: Blood Pressure: Vital Cap.: Ht.: Wt.:

General appearance: Pallor. Dyspnea. Cyanosis. Edema. Joints. Skin rash. Chorea.

Tonsils & adenoids. Cervical adenitis.

Oral hygiene:

Heart size:

Rate & rhythm:

Thrills:

MURMURS: Location. Timing. Intensity. Quality. Transmission. Heart sounds.

Other: Abdomen. Liver. Spleen.

X-ray & Fluoroscopy:

LABORATORY

Sed. rate: Hgb. (gms): RBC: WBC: P. L. Eos.

Urinalysis: Sp. Gr.: React.: Alb.: Sug.: Micro.:

Throat culture: Agglutinations:

Electrocardiogram:

(50 per cent) of all admissions, and found abnormal in 24 per cent. When the diagnosis was rheumatic fever, the x-ray was abnormal in 30 per cent.

Physician participation in the Rheumatic Fever Control program was as follows: There were 484 physicians in the general geographic area. Of these, 222 (46 per cent) had referred one or more patients to the Centers for examination. A total of 117 had referred more than one case. Fifty-four physicians acted as consultants in the operation of the two Centers.

Rheumatic Fever

By Robert T. Lyons, M.D. and
Donald S. Smith, M.D., F.A.C.P.

Pontiac, Michigan

AN UNUSUAL increase in the number of cases of rheumatic fever seen at Pontiac General Hospital, a 200-bed general hospital in an industrial community, has provoked this study. Using the criteria commonly accepted (i.e.: *major criteria* of carditis, arthralgia or migrating arthritis, chorea, subcutaneous nodules, history of previous attacks; and the *minor criteria* of fever, tachycardia, precordial pain, abdominal pain, rashes, epistaxis, pulmonary findings and laboratory findings), a study of cases over the past three and one half years (January 1, 1948, through June 30, 1951) was undertaken. This revealed twelve cases in 1948, twelve in 1949, fourteen in 1950, and thirty in the first half of 1951.

This total of sixty-eight cases had a death rate of 5.88 (four cases, of which three had postmortem examinations) and an admission incidence, exclusive of maternity and newborn, of 0.29 per cent. Each admission averaged 15.8 hospital days—the longest forty days and the shortest two days. No patient was included more than once in this series, although approximately 20 per cent were hospitalized more than once for acute rheumatic fever at this hospital alone. Each invariably had an elevated sedimentation rate and, with the exception of two patients, all had fever while in the hospital. A percentage of 36.8 (twenty-five cases) had abnormal electrocardiograms, exclusive of prolonged QTc intervals, while observed; 77.9 per cent (fifty-three cases) had joint signs or symptoms when seen, and 4.4 per cent (three cases) were admitted because of abdominal pain.

In 1947 a Rheumatic Fever Consultation and Diagnostic Center was established in Pontiac at this hospital. From 1948 through 1950 only thirty-five patients were seen. Of these, four were in the acute phase, seven were inactive, and twenty-four were non-rheumatic. In the first six months of 1951, no patients were referred to the Center. We believe this is due, in large part, to lack of publicity to the local physicians concerning both the disease and the clinic services available. That the importance of rheumatic fever as a community problem is being overlooked is evidenced by the fact that, during this period of three and one-half years, although sixty-eight acute cases were seen at General Hospital, only forty-eight cases were reported to the county and city health authorities, and this number included both acute rheumatic fever and chronic rheumatic valvular disease. The discrepancy between the number seen and the number reported is even greater considering that Pontiac General Hospital handles less than 50 per cent of the patient load of Oakland County.

The relatively high incidence of cases hospitalized this year, actually 0.9 per cent of hospital admissions exclusive of maternity and newborn, may be due to an economic paradox which exists in this community—90.3 per cent of these cases had prepaid hospital insurance—a rate probably responsible for the large number of cases hospitalized this year. Some of these were undoubtedly admitted solely for therapy with ACTH. Prepaid hospital insurance in any form, by bringing to light a higher incidence of this disease, will change prevalent concepts of public health. A definite correlation has also existed concerning scarlet fever for, according to county and city health authorities, the number of cases of scarlet fever reported last year and this year has risen from 501 in all of 1950 to 1,077 cases in the first half of 1951.

A positive diagnosis of rheumatic fever is frequently difficult to make as evidenced by the finding of mitral disease in adolescents and young adults who have no previous history of acute rheumatic fever. On the other hand, a diagnosis of rheumatic fever in a patient made without the previously established criteria may well jeopardize his mental, social and economic future. So far, the Rheumatic Fever Consultation and Diagnostic Center has helped this type of patient more frequently than the one in whom it has substantiated a positive diagnosis, thus releasing him from serious socio-economic implications. This point, however, should not be the main purpose of the Center. Additional publicity to the physician in the area is undoubtedly the answer to the question of how to make the Center fulfill its aim of treatment and prevention of the disease.

With the advent of ACTH on the open market, this drug was given to a number of these patients in the acute phase. It was immediately apparent

From the Department of Internal Medicine, Pontiac General Hospital, Pontiac, Michigan.

that all could not afford adequate treatment. Consequently, with no enforceable restrictions, dosage was varied in wide ranges, most frequently depending upon the patient's response to the initial few doses. Sixteen patients had trials of ACTH and eleven of these were followed personally with the co-operation of the attending physicians. One of these patients succumbed in the acute attack. The hormone was administered for twelve hours prior to death. A point that deserves attention is that electrocardiographs in this patient were normal exclusive of prolonged QTc intervals. This patient showed myocarditis and valvulitis at postmortem examination. This case is presented to point out that the typical course of acute rheumatic fever is entirely unpredictable and may at any time become fulminating. It was noted previously that the average hospital stay was 15.8 days. This is far below the limits for adequate supervised care. In review, it was found that only 22 per cent of the sixty-eight cases had had specialty consultation.

Case 2059.—First admission—G.M.W., a five and one-half-year-old white male child, was first admitted to the hospital on January 9, 1951, with the chief complaint of fever and swelling of the right ankle of several days' duration. There was no history of previous chorea, joint, heart or kidney disease. On admission, temperature was 102.4° F., pulse rate 120 and respiration rate 18. He was undernourished, pale and acutely ill. The heart was not enlarged. There was a rough systolic murmur at the apex. The right ankle was moderately tender, swollen and painful. The chest x-ray was normal. Hb. 12.45 grams, Rbc 4.32 million, Wbc. 8,900 with a slight shift to the left. The sedimentation rate, on admission, was 41 mm. corrected and five days later was 32. Urine examination findings were normal. The electrocardiogram on admission was judged within normal limits. The patient was given 40 grains of aspirin daily and confined to bed. During the hospital stay the swelling of the right ankle gradually subsided and the apical systolic murmur was reduced considerably in intensity. However, throughout the course of the hospital stay he ran a low-grade temperature. The patient was advised to indulge in graduated activity at home and was discharged eleven days after his admission.

Second admission.—The patient was admitted from the emergency room on May 26, 1951, at which time he was semi-comitose, pale and slightly cyanotic. The parents stated that he was evidently "doing well" until the previous day when he vomited several times and complained of feeling weak. The mother had been taking the patient's temperature at least daily since the first discharge and stated that, although he had occasional sweats, he had no fever. On the day of admission, while in bed, he suddenly lost consciousness. Examination on admission revealed a temperature of 99° F. rectally, pulse rate of 76, and respiration rate of 24. There was a harsh systolic murmur over the entire precordium. There was no evidence of congestive heart failure. The impression at that time was acute rheumatic fever with probable mural thrombi and embolization of the brain. A blood culture was taken and he was given 150 mgms. of Dicoumeral and started on ACTH—20 mgms. every six hours. An electrocardiogram at that time was well within normal limits except for a prolonged QTc interval.

The patient's condition grew steadily worse, the temperature rose to 106 degrees and, following a convulsion, he expired twelve hours after admission. Postmortem examination revealed, grossly, that the pericardial cavity was free of abnormality, although the greatest transverse diameter of the heart was moderately increased. The heart weighed 155 grams. The coronary arteries and myocardium were grossly normal. The mitral valve was thickened, red and edematous with a line of fine pinkish granulation tissue at the line of closure. Under water, small fibrin strands were seen to be adherent to these granulations. The aortic valve was slightly thicker than would be expected. The microscopic report stated that the sections of the myocardium showed rather extensive changes varying from perivascular edema and fibrinoid degeneration to collections of mononuclear cells and, in some instances, large mononuclear elements within coffin-shaped nuclei. In no instance was this cellular infiltration sufficiently localized to be called a true Aschoff's nodule; however, these were undoubtedly the acute changes of rheumatic myocarditis. Gross and microscopic examination of the brain failed to reveal any abnormality.

Because the affliction exists for days or weeks before ACTH can be administered, its use cannot exclude valvular damage with any surety even in the first attack. Even if it could be given early, symptomatic relief by its use: i.e., subsidence of joint signs and symptoms, fever, and tachycardia, is not necessarily related to subsidence of valvular activity in the acute phase. We believe that the only reliable criterion, as far as laboratory procedure is concerned, is the return of the sedimentation rate to normal limits. The following case gives evidence to these facts.

Case 77722.—This ten-year-old white girl was admitted to the hospital on February 1, 1951, with the chief complaint of fever of ten days' duration and pain in the left wrist of three days' duration. Past history revealed a possible episode of chorea at the age of six years. On admission, the temperature was 102° F., pulse rate 90, and respiration rate 24. Physical examination revealed a white girl of pre-puberty who was toxic, feverish and complaining of a painful left wrist. This was swollen, red, warm and exquisitely tender. The right wrist was involved to a lesser extent. There was a soft blowing systolic murmur over the entire precordium, loudest at the apex. Study of the blood and urine was

normal except for a slight leukocytosis. The sedimentation rate was 30 mm. corrected. Three electrocardiograms during her hospital stay showed an initial PR interval of .22 seconds which shortened to .18 seconds before discharge. She was begun on ACTH on February 7, 1951, at 10 mgs. every six hours and continued at that dosage for eleven days. Marked symptomatic improvement was noted after starting the hormone. On discharge, the sedimentation rate was 21 mm. corrected. Although intently listened for, a diastolic murmur was not heard at any time during her hospital stay. She was discharged thirty-four days after admission.

On arriving home she was confined to bed for three weeks, during which her mother noted an occasional fever of about one degree. The patient was seen five months later by one of us, at which time there was noted a typical rumbling diastolic over the apex and an opening mitral snap, in addition to the blowing systolic murmur heard previously. The patient at this time is asymptomatic.

It is not implied that larger doses of ACTH for prolonged periods of time may not inhibit valvular deformities. However, treating for symptomatic relief, including the signs of fever and tachycardia, if present, is valueless. Several other cases in this series add impetus to this fact. Proof that ACTH has been beneficial in any one of these followed cases has been lacking, even when given up to 200 mgs. (per twenty-four hours) for initial dosage and treated for as long as four weeks.

Conclusions

1. An increase in acute rheumatic fever cases seen in Oakland County has been far and above the number reported, although this is a reportable disease. This increase has been paralleled with the increase in scarlet fever reported in the county.

2. This increase in number in 1951 has made this disease a serious community problem as evidenced by the incidence of hospital admission.

3. The Rheumatic Fever Diagnostic and Consultation Clinic is not being used to advantage at the present time. This, we believe, is due to lack of publicity, as far as the doctors in the community are concerned.

4. The high incidence of prepaid hospital insurance in this industrial community and the advent of ACTH have probably been responsible for the number seen in the hospital this year.

5. Hospital insurance, when it becomes widespread in other communities, may well change current knowledge and statistics of the incidence of rheumatic fever.

6. Evidence is presented that symptomatic relief by the use of ACTH is not necessarily related to the cessation of valvular activity.

OASI vs. ASSISTANCE

The following table shows the number of persons sixty-five and older receiving Old Age and Survivors' benefits and old age assistance, and the comparative cost of each program, from 1940 to the present (000 omitted):

	OASI		Old Age Assistance	
Year-End	Number	Monthly Payment	Number	Monthly Payment
1940	147	$ 2,992	2,066	$ 41,926
1941	274	5,558	2,234	47,589
1942	368	7,546	2,227	52,120
1943	448	9,304	2,149	57,298
1944	567	11,872	2,066	58,726
1945	777	16,552	2,056	63,489
1946	1,052	22,700	2,196	77,531
1947	1,318	28,811	2,332	87,270
1948	1,591	35,364	2,498	104,978
1949	1,951	44,440	2,736	122,458
1950	2,599	101,579	2,787	120,072

Source: Federal Security Administration.

COMPLICATIONS OF CORONARY OCCLUSIVE DISEASE

(Continued from Page 1409)

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Renal and Neurogenic Factors in Hypertension

An Experimental Study

By W. J. Kenfield, David F. Bohr, R. R. Paterson and H. J. Kitto

Ann Arbor, Michigan

EXACT information regarding the etiology and the pathogenesis of sustained arterial hypertension in man is still wanting. However, both clinical and experimental studies have indicated that there are certain factors so closely related to the development of this disease that they must be considered in any hypothesis dealing with its cause. Those factors receiving the greatest amount of consideration in the current literature are the disturbances in control of blood pressure arising in the kidneys, the central nervous system or the adrenal cortex. The study reported here deals with a possible relation between renal and neurogenic factors concerned in the development of hypertension.

Experimental evidence incriminating the central nervous system as the site of the fundamental change responsible for hypertension of a type similar to human essential hypertension is meager. It has been demonstrated, for instance, that exposure of certain rats to the sound of air blast may produce an elevation in blood pressure.[5] Furthermore, Hoff and his co-workers[8] have observed that stimulation of a specific region of the frontal lobe in the cat will cause an elevation in blood pressure, and when these stimuli are repeated at frequent intervals for several weeks, the animals developed organic renal changes which are interpreted as being due to renal ischemia. On the other hand, these results are not entirely in keeping with the findings of Kubicek and Visscher[9] who carried out a chronic stimulation of the sympathetic nerves supplying the kidneys in dogs. These authors obtained arterial hypertension as long as the stimulus was continuous, but on cessation of stimulation, the pressure returned to normal. Experimentally, hypertension will result from either marked cerebral ischemia or destruction of the blood pressure buffer nerves from the carotid sinus and the aortic arch. The hemodynamics of this type of hypertension is so different from that of clinical essential hypertensions that the two must be considered to differ etiologically.[1]

Clinically, evidence that the central nervous system may have some fundamental significance in the development of essential hypertension is more impressive. Thus, this disease occurs predominantly in individuals of a quite specific personality type.[7] Once the disease is present, it is exacerbated by nervous strain. Furthermore, the significant improvement commonly seen following sympathectomy[15] may be used as evidence that this neurogenic vascular control is of some importance in perpetuating the hypertension.

When the kidney is considered as a cause of hypertension, it is found that the experimental evidence is more convincing. When a proper degree of renal ischemia is produced either by partially occluding the renal artery[6] or by constrictive perinephritis,[12] arterial hypertension will result. The hemodynamics of this hypertension cannot be distinguished from that of essential hypertension in the human being.[1,17] A clinical analogue of experimental renal hypertension is seen in cases where the renal artery is partially occluded by a tumor or thrombus.[2] This form of renal hypertension is clinically similar to essential hypertension except that it is frequently cured by unilateral nephrectomy.[13]

It was initially considered that the demonstration of the renin system originating in these ischemic kidneys might furnish the fundamental key to explain the development of arterial hypertension. This explanation seemed more convincing when renin was found in amounts sufficient to be responsible for a rise in blood pressure in the blood of dogs with early experimental renal hypertension.[3] When the experiments were carried out a little further, however, the renin could no longer be found. Furthermore, in chronic essential hypertension in humans, the renin and hypertensin content of the blood is no different from that of a normotensive subject.[14]

Thus, although disturbances of either the kidneys or the central nervous system may be implicated in the development of essential hyperten-

From the Physiology Laboratory, University of Michigan, Ann Arbor, Michigan.

This study was supported by grants from the Life Insurance Medical Research Fund and from the Michigan Heart Association.

A preliminary report of this study was presented at the Fall Meeting of the American Physiological Society in 1951.

sion, neither mechanism, as it is known today, seems sufficient in itself to complete the clinical picture of essential hypertension. Either one could be the site of the process that initiates the chain of events that leads to this disease. Renal ischemia initiates the production of renin in amounts sufficient to cause hypertension, but, with persistent ischemia, renin production stops while the hypertension persists.[3] Therefore, it is pertinent to ask whether renin or any renal pressor substance might act elsewhere to initiate a secondary mechanism which in turn perpetuates the hypertension. The possibility that the central nervous system may take over the responsibility for perpetuating the disease is suggested by several lines of evidence. Dock[4] has demonstrated that destruction of neurogenic vasomotor activity in the rabbit with experimental renal hypertension causes a marked fall in blood pressure. Ogden[11] has presented evidence to indicate that sympatholytic agents are more effective in lowering blood pressure late in this disease than during the earlier phase when it is considered to be caused by humoral pressor substances. Perhaps these substances act indirectly through neurogenic channels to cause a persistent elevation of blood pressure. In our current study we have explored the possibility of such a mechanism by establishing experimental conditions in which we could make direct observations of the effects of renal pressor substances on the central neurogenic control of blood pressure.

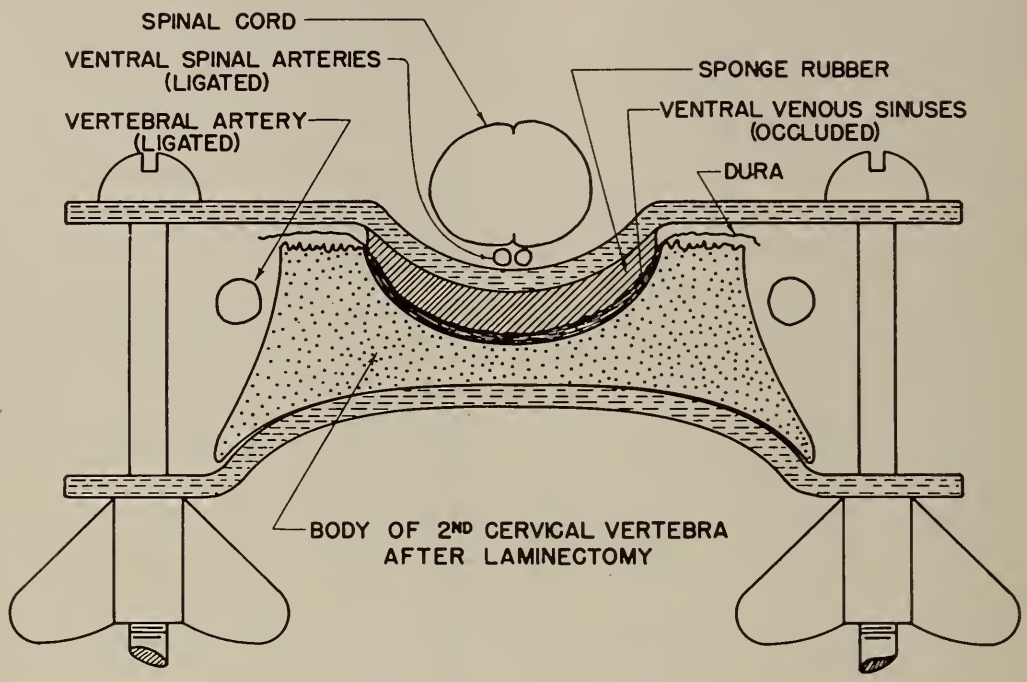


Fig. 1. Technique for obtaining circulatory isolation of the head at the level of the second cervical vertebra.

The effect of renal pressor substances on the central control of blood pressure was investigated by cross transfusion experiments in which blood from a donor dog was circulated only to the isolated head of a recipient. In this manner, the intact donor animal and the isolated head of the recipient were subjected to the same circulating renal pressor substances. The spinal cord and vagus nerves of the recipient were left intact. Since no blood passed from the head of the recipient dog to the body of this animal, any change in blood pressure observed in the body could be attributed to the action of these substances on the central nervous system.

Method

Mongrel street dogs were used. The weight of the donor varied from 17 to 27 kilograms; that of the recipient from 9 to 15 kilograms. Morphine

and urethane anaesthesia were used. Simultaneous blood pressure recordings were obtained from the femoral artery of the donor, from the carotid artery of the isolated head of the recipient and according to the method of Nowak.[10] A pump was interposed between the common carotid arteries of the donor and the recipient (Fig. 2). This pump could be adjusted to deliver blood from

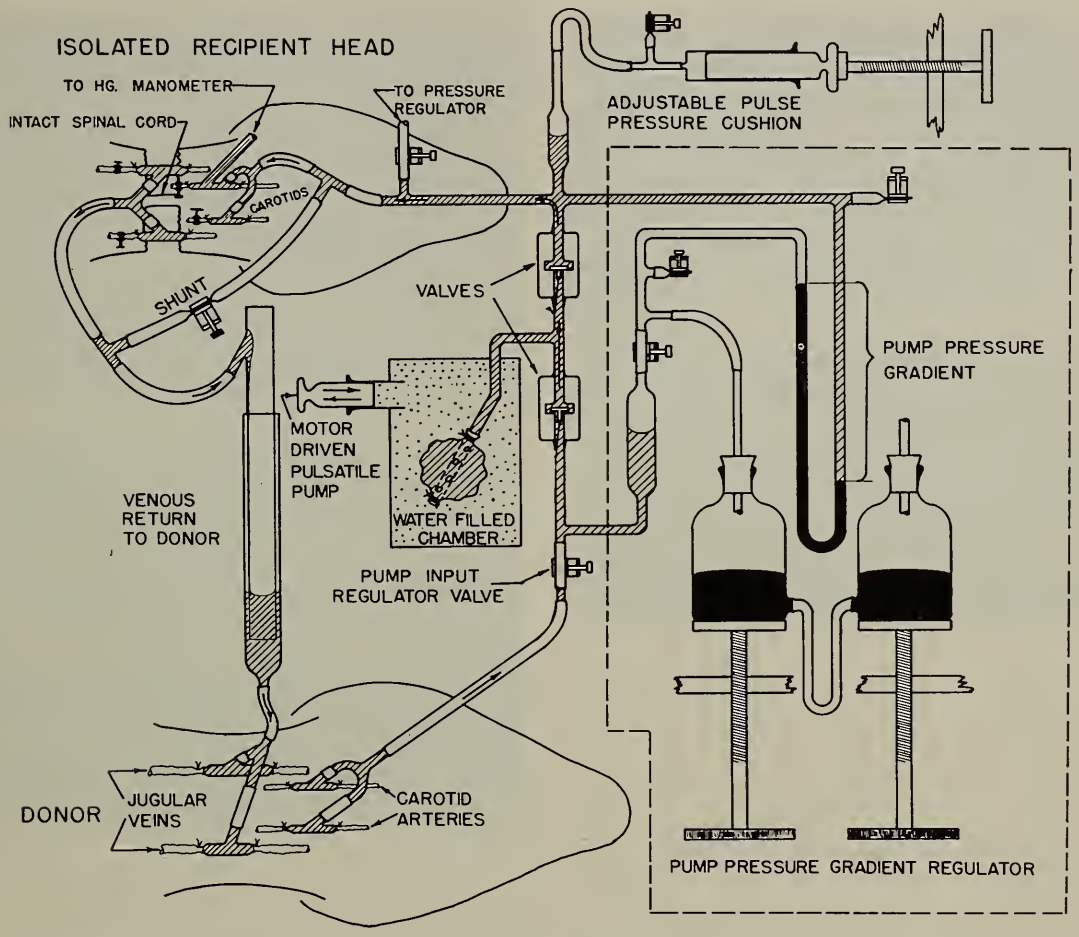


Fig. 2. Pump system for delivering blood through the isolated head of the recipient at either a constant volume flow or a constant pressure.

from the femoral artery of the body of the recipient. Respirations were recorded by a pneumograph in both animals.

The donor animal was left intact except for the cannulations necessary for cross transfusion and for recording blood pressure. The head of the recipient animal was isolated at the level of the second cervical vertebra. Figure 1 illustrates the manner in which this isolation was accomplished. At the time of the experiment the only tissues remaining intact between the head and the body were the spinal cord, the vagus nerves, the plexus of vessels in the arachnoid and pia and the most anterior portion of the second cervical vertebra. As illustrated in Figure 1 the vertebral and ventral spinal arteries were ligated. The ventral spinal venous sinuses were occluded by a clamp the donor to the recipient head at either a constant rate or at a constant pressure. The recipient was placed above the donor so that the venous blood returned from the isolated head to the donor by gravity. Rigid criteria were established for the isolation of the head and the intactness of the nervous system. Evans blue dye was injected into the donor-isolated head circuit, and the recipient body blood was checked at intervals for the presence of the dye. In this manner, it was demonstrated that blood leakage from the isolated head to the recipient body was negligible. Intact nerve connections between the head and body of the recipient were demonstrated by the normal respiration of this animal. Artificial respiration was not used.

Results

The data presented are from two types of experiments. In one, renin was injected into the donor-isolated head circuit, while in the other

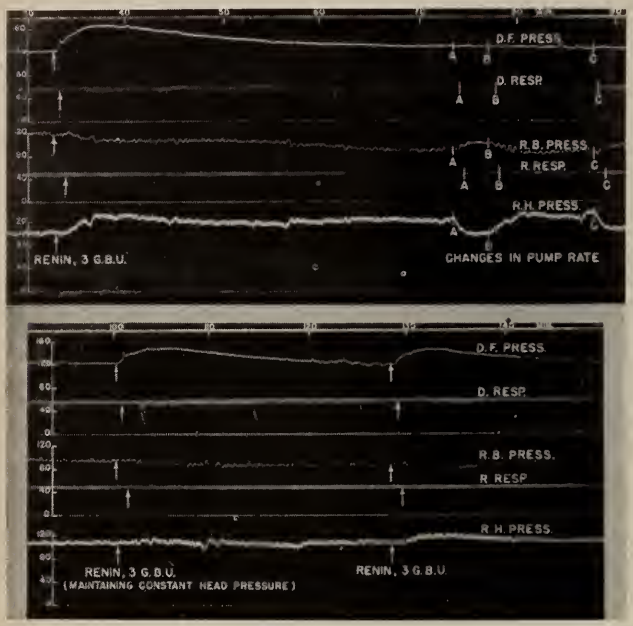


Fig. 3. Action of renin on the central neurogenic control of blood pressure. Note that changes in recipient body blood pressure (R. B. Press.) occur only as mirror images of changes in recipient head pressure (R. H. Press.). The changes in recipient body blood pressure are of the same magnitude regardless of whether the change in recipient head pressure is due to the action of renin or due to a change in pump rate. Renin has no direct action on the central neurogenic control of blood pressure.

the pressor substance was obtained from the anoxic kidney of the donor by the release of clamps which had occluded the blood supply through the renal pedicles for five to six hours.[16] In each type of procedure the blood pressure response in the body of the recipient was observed with and without a controlled constant blood pressure in the isolated recipient head. In Figure 3 is illustrated the response of the blood pressures to the administration of renin into the donor-isolated head circuit. It consists of a kymograph record in two sections, the lower one a continuation of the upper. As labelled at the right, from above down, the three blood pressure tracings record, (1) femoral pressure of the donor, (2) blood pressure in the body of the recipient, and (3) pressure in the isolated head of the recipient. On the left the arrows indicate the time of administration of renin into the donor-isolated head circuit. Observing the blood pressure responses from above down, there was an immediate rise in the femoral pressure of the donor, a somewhat delayed fall in the arterial pressure of the body of the recipient and an elevation in the pressure of the isolated head of the recipient.

At the right of the upper tracing are recorded

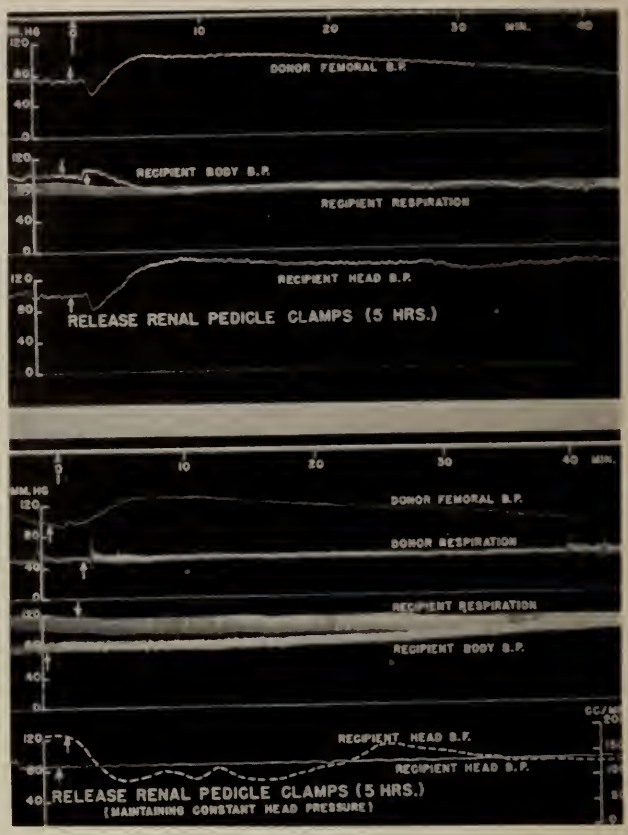


Fig. 4. The effects of renal pressor substances produced during a five-hour period of occlusion of the renal pedicle of the donor. The upper record shows the changes in recipient body blood pressure when the head pressure is permitted to rise in the presence of these substances. In the experiment recorded in the lower tracings the blood pressure of the head of the recipient was maintained at a constant level when the pressor substances were delivered to it from the kidneys of the donor. Under these circumstances the presence of these substances in the brain of the recipient failed to alter the blood pressure of the body of this animal.

blood pressure changes which occurred when the arterial blood pressure of the isolated recipient head was elevated mechanically by increasing the volume flow of blood through this isolated structure. This was accomplished by increasing the rate of the pump. Here again this elevation of blood pressure in the isolated head caused a fall in the blood pressure of the body of the recipient similar to that seen with the administration of renin as described above. This would indicate that the fall in blood pressure in the body of the recipient animal was the result of the changes in the arterial pressure in the head of the recipient.

In all probability this depressor response was a manifestation of the buffering action of the baroreceptors of the head, namely, the carotid sinuses. The lower record in Figure 3 illustrates a further check on the cause of the depressor response of the recipient body. Renin was introduced into the donor-isolated head circuit and the blood pressure of the isolated head of the recipient was maintained constant by decreasing the pump rate. Under these circumstances the blood pressure of the body of the recipient did not fall. Therefore, in the absence of a pressure change in the isolated head, renin failed to produce changes in the central nervous system which would alter the blood pressure of the body of the recipient.

The blood pressure changes which occurred when the donor animal was made hypertensive by the release of the renal pedicle clamps, are shown in Figure 4. With the release of the clamps, substances which had accummulated in the kidneys were poured out into the general circulation to cause a transient hypertension of approximately thirty minutes duration. The tracings in Figure 4 were obtained from two different experiments. In the upper record there is seen a rise in arterial pressure of both the donor and of the isolated head when the renal pedicle clamps were removed. There was a fall in the arterial blood pressure of the recipient body. In the experiment recorded below, the conditions were the same except that the arterial blood pressure of the isolated head was held constant following the release of the renal pedicle clamps. The dotted line indicates the volume of blood pumped through the isolated head. The decrease in blood flow following the release of the pedicle clamps demonstrates the increase in vascular resistance in the head caused by renal pressor substances. As in the renin experiments, the depressor response of the arterial blood pressure in the body of the recipient was eliminated by maintaining a constant pressure in the head even though renal pressor substances were demonstrated to be present in this area by increase in vascular resistance. From the above data it was concluded that the renal pressor substances do not act directly on the central nervous system to alter its control of arterial blood pressure.

Discussion and Conclusions

With the introduction of renal pressor substances into the vascular system of the isolated head of the recipient there occurs a rise in pressure in that circulatory system. That this rise of blood pressure is due to an increase in the peripheral resistance of this isolated vascular circuit is demonstrated by the fact that the rise in pressure occurs here while a constant volume flow of blood is maintained to the head. An associated fall in recipient body pressure occurs only when the pressure in the head is permitted to increase. If the head pressure is held constant, no fall in recipient body pressure occurs. Furthermore, when head pressure is increased in the absence of renin in the circuit, the recipient body pressure still falls. This demonstrates conclusively that the depressor response observed in the body of the recipient is on the basis of pressure changes in the isolated head and is not due to the action of a renal pressor substance on the isolated head. The renal pressor substances do not have a direct action on the neurogenic control of blood pressure. It can be concluded, therefore, that these substances do not act on the central nervous system to initiate the neurogenic pressor activity which may play some part in maintaining the elevated blood pressure in chronic experimental renal hypertension and in human essential hypertension.

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Operation for Coarctation of Aorta in Older Patients

By F. D. Dodrill, M.D.
Detroit, Michigan

COARCTATION of the aorta is a congenital malformation wherein the aorta is either partially or totally constricted. The constricted area may be one of two types. In the first type, known as the infantile type, the constriction is in the proximal portion of the aortic arch. In the second type, known as the adult type, the constriction is in the region of the ligamentum arteriosum. It is this latter type that is amenable to surgical resection. The constriction leads to extensive collateral circulation between the proximal branches of the aorta and the intercostal arteries distal to the constricted area. It is because of this extensive collateral circulation that it is possible to apply clamps to the aorta proximal to, and distal to, the constriction, to resect the constricted area and anastomose the two ends of the aorta, thereby re-establishing the continuity and the calibre of the aortic lumen throughout.

The constriction produces hypertension in the upper portion of the body and hypotension or absence of blood pressure readings in the lower extremities. The effects of the hypertension in the upper portion of the body leads to deleterious effects upon the heart and vascular system. Because of the enlargement and pulsation of the intercostal arteries, notching of the ribs is seen on the thoracic roentgenogram. Cerebral vascular accidents and complications in the collateral circulation as well as cardiac hypertrophy are eventually seen in untreated patients.

The procedure was first carried out by Crafoord[2] of Sweden and independently by Gross.[3] During the early phases of the development of this surgical procedure, it was thought that the operation should not be carried out in older patients, say beyond twenty-five years, because in such malformations there is apt to be degenerative diseases of the aorta develop at an early age. Such degenerative disease of the aorta would make the suturing of the ends a precarious procedure. However, as time has gone on, surgeons throughout the country are operating on older patients usually with good results. In 1949, Blalock[1] reported a successful operation on a man aged forty.

The purpose of this paper is to show that the operative procedure is a practical one in selected older patients. Patients who have reasonably good hearts and who do not show too far advanced degenerative changes of the vascular system may undergo the operative procedure with good results. Nearly always in the older patient, one will observe degenerative changes in the intercostal arteries but the disease may not be equally present in the aorta itself. Three patients have been operated upon successfully by me whose ages are thirty, forty and forty-two, respectively. This report does not include younger patients in my series.

Case Reports

Case 1.—This colored man, aged thirty, had been having headaches for many years. He had been known to have had hypertension in his upper extremities for many years. Physical examination showed a young appearing adult, colored male, with a blood pressure of 210/90 in his upper extremities. There were no palpable pulses in his lower extremities. No blood pressure reading could be obtained in his lower extremities. Easily palpable intercostal arteries were present in the upper intercostal spaces. The heart was normal in size by percussion. It was regular in rhythm and no thrills were present. A systolic murmur could be heard over the upper precordium as well as posteriorly. A roentgenogram of the thorax showed a normal sized heart and no calcification could be seen in the aorta. The electrocardiogram showed left ventricular strain. There were no significant changes in the eye grounds. Kidney function tests were performed and were within normal limits.

The operative approach was through a left posterolateral incision. Huge collateral arteries were present in the chest wall. The fifth rib was resected throughout most of its course and the general pleural cavity was entered. The constricted aorta was present about a centimeter distal to the left subclavian artery. Three pairs of intercostal arteries were ligated and divided thereby freeing up the entire circumference of the aorta at this point. The intercostal arteries were not grossly diseased. Clamps were applied above and below the constriction and a two centimeter length of the aorta was resected (Fig. 1). The ends were approximated and sutured with fine silk, using a continuous everting mattress suture. The clamps were slowly removed over a period of about five minutes. There was a great fall in blood pressure from 210 systolic to 130 systolic. The heart remained regular throughout. The chest wall incision was closed in the usual manner. At the conclusion of the operation, there were good palpable pulses in his dorsalis pedis arteries. Blood pressure in the lower extremities was equal to that in the upper extremities.

The patient made a rapid recovery and was discharged twelve days following the operation. He returned to

work six weeks following the operation and the blood pressure has remained approximately 130/80 in the upper extremities and 140/80 in the lower extremities. The systolic murmur is no longer present. He no longer has headaches or other symptoms of hypertension.



Fig. 1. Resected portion of aorta, 2 cm. in length, showing a small lumen in the center. No atherosclerotic plaques present.

Case 2.—This forty-year-old white man had known hypertension for many years. The etiology was not known until recently. The blood pressure in his upper extremities was 210/110. There were marked visible pulsations in the vessels of the neck. The large pulsating arteries could be seen in the inter-scapular area. There were no palpable pulses in his lower extremities and no blood pressure recording could be obtained in the lower extremities. The heart was not enlarged to percussion. The rhythm was regular and there was a basal systolic murmur present which was also heard posteriorly. The thoracic roentgenogram showed marked notching of the ribs. The heart was not particularly enlarged. No calcification could be seen in the aorta or other vessels. Electrocardiogram showed left ventricular strain. The examination of the eye grounds did not show the usual effects of hypertensive disease. Kidney function tests were carried out and were within normal limits.

Operation was carried out on April 26, 1950. The constricted area was found to be distal to the origin of the left subclavian artery. It was a total occlusion of the aorta. During the dissection of the aorta, three pairs of hugely dilated intercostal arteries were isolated and divided. Visible atherosclerosis was present in the intercostal arteries. In fact, these vessels were so friable that they had to be sutured with fine silk rather than ligated. The constricted area was resected (Fig. 2). Because the constriction was so near to the origin of the left subclavian, the anastomosis had to be carried out between the distal end of the divided aorta and the side of the hugely dilated subclavian artery. Figure 3 shows a

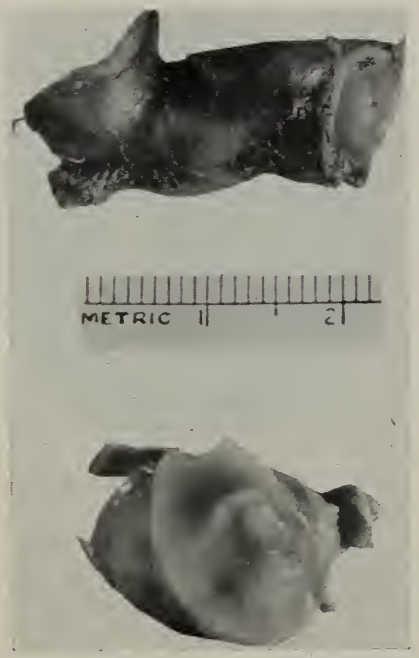


Fig. 2. Resected coarctation in Case 2. Again no visible atherosclerotic plaques are present.

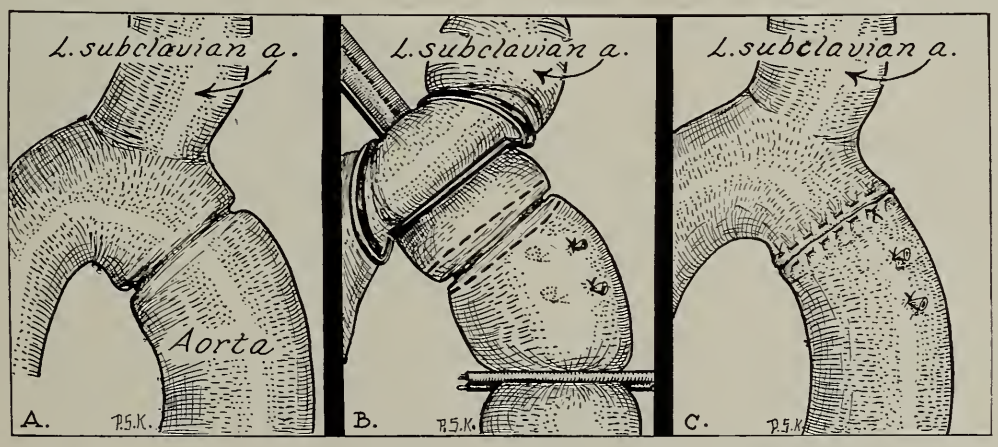


Fig. 3. A method of partially occluding the left subclavian artery when the coarctation is near it.

method of partially occluding the subclavian artery when the coarctation is near it. After the constricted area was resected, the ends of the aorta were carefully inspected and the marked atherosclerosis which was present in the intercostal arteries was not visible in the aorta itself.



Fig. 4. Resected portion of aorta, 2 cm. in length, Case 3.

Following the slow release of the clamps on the aorta, the blood pressure dropped from 210/100 to 120/80. The chest was closed in the usual manner. The patient made an uneventful recovery and the blood pressure upon discharge was 140/80 in the upper extremities and 160/80 in the lower extremities. He continues to work as a foreman in a factory. His physician tells me that, with excitement, his blood pressure may go up to 160 to 170 systolic but is easily controlled by medical measures.

Case 3.—This white man, aged forty-two, had known coarctation of the aorta for ten years. However, because of his age, operation had not been recommended. Physical examination showed huge pulsating vessels in the neck as well as visible and palpable collateral vessels over the upper posterior thorax. The blood pressure in the upper extremities was 210/80. No pulses could be felt and no blood pressure recording could be obtained in the lower extremities. The thoracic roentgenogram showed slight left ventricular enlargement and no calcification could be demonstrated in his aorta. Electrocardiogram showed marked left ventricular strain. The eye grounds showed some tortuosity in the retinal arteries. Kidney function tests were within normal limits.

Operation was carried out on March 9, 1951. The coarctation was present just distal to the ligamentum arteriosum. The aorta was totally occluded at the constricted area. Three pairs of intercostal arteries had to be divided in order to free up the aorta. There was an aneurysmal formation present in the left intercostal artery just distal to the constricted area. This was approximately two centimeters in diameter. Because the aneurysm extended from the aortic orifice of the intercostal artery, it was necessary to suture the aortic orifice itself in order to eliminate the aneurysm. There was marked visible atherosclerosis present in the intercostal arteries. However, after the coarctation had been resected, the aorta itself did not show gross evidence of atherosclerosis (Figs. 4 and 5). The ends were brought together and sutured in the usual manner. As the clamps were released

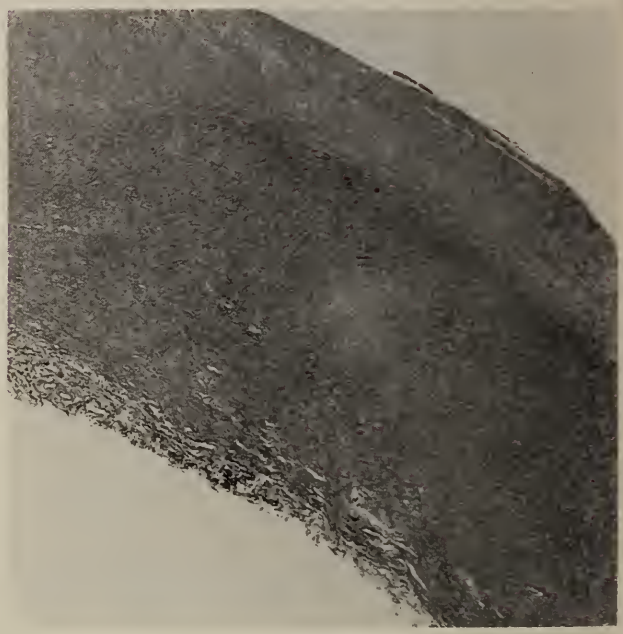


Fig. 5. Microscopic section of aorta in Case 3. No calcification is seen. There is marked fibrous thickening of the wall which is strong tissue for suturing.

from the aorta, there was a marked drop in blood pressure from 210/100 to 120/80. Following the closure of the chest wall incision, the patient developed pulmonary edema and required intratracheal aspiration. This subsided at the end of two hours. It was thought that too much blood had been given during the procedure, although there was a great amount of blood loss during the operation. The patient made a good recovery and was discharged with a blood pressure of 140-146/80 in the upper extremities and 160/80 in the lower extremities. Post-operative observation over the past six months has shown the blood pressure in the upper extremities at 150-160/80 with a slightly higher pressure in the lower extremities. The marked pulsations which were visible in the neck are no longer present.

Discussion

It has long been known that coarctation of the aorta is prone to produce atherosclerosis at a comparatively early age. The late complications of the disease are often due to accidents in the collateral circulation, although the aorta itself may rupture from the excessive pressure. The pathological findings in the two older patients presented would bear out the fact that the degenerative disease is much

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Know Yourself

By Alfred P. Haake, Ph.D.
Political Economist
Park Ridge, Illinois

IN DISCUSSING a Formula for Freedom, the first step is certainly to KNOW YOURSELF; but I think even behind that we should have clearly in mind exactly what we mean by "freedom."

If you don't mind, I want to go back to the very basis of things, which is that for some reason or other, in His own way, the Creator placed men on earth. It does not require a theologian, a philosopher or a businessman to explain that. Science, ministry, philosophy—all of them must agree that upon occasion a man was placed on earth, and that that man was given certain injunctions. How he was given them is pretty much beside the point.

But when the process was over, there was the man, endowed with the right to choose, made responsible for the consequences of the choices that he made, having to rely upon himself and his own activities—endowed with a stewardship for himself, for the material and the forces at his disposal, and given the injunction to earn his bread by the sweat of his brow.

So, man begins by being responsible not to any individual—not to any government—but to God Almighty Himself for what we call freedom. It is a right inherent within the individual himself, and with that right goes the corresponding responsibility for the consequences of the choices that the individual makes.

I think it is very important to have clearly in mind that freedom is not merely laissez faire or absence of restraint, that the man who is free can do anything he pleases. That is not true. Freedom is a question of control. Energy, regardless of where it is, must be controlled. If it is uncontrolled, it becomes destructive—and that is just as true of the human body and the human mind as it is of an atomic bomb or any other kind of energy.

So, it is not a question of whether a man shall be unrestrained in one way or other—it is a question, rather, of how that individual shall be controlled, and who shall control him. A man is free if he controls himself. He is not free if he is controlled from the outside or by government.

I think it is exceedingly important that we never for one moment forget that. The whole basis of this business is the sacredness of the individual personality and the responsibility of that personality directly to God himself for the way in which he uses that which is his—his body, his mind, his soul, the earth, with its materials and forces, in which he lives.

So, it is a question of self-control. If the man controls himself, he is free; if he does not control himself, he is not free.

How shall he control himself? Manifestly, this whole process is going to result (if it is successful) in the development of the individual; and if the individual develops as he should develop, it is because he uses his powers and his opportunities effectively. You can lay it down as a rule, as I need not put it to you gentlemen, that the powers which he does not use, he loses. That is the injunction: Use that which is yours, or you lose it through loss of use.

How shall he control himself? The process begins logically with the individual knowing himself. That, in itself, is a terrific responsibility. It becomes my duty and my responsibility to understand this body of mine. Whether I understand it as well as a doctor, or not, may not be so important.

There are many things about my body which I am not going to understand quite as well as a doctor will understand them. I am frankly not too much concerned about knowing all about the duodenum, or what happens when a bone button gets into it—if a bone button could get into it. I don't happen to know even that; but I do need to know what kind of a body I have. I do need to know what my possibilities are with that body: Am I powerful? Am I well endowed with muscles? Am I well endowed with a bone structure? Are there any weaknesses in this body of mine that have to be watched and overcome? We overcome other difficulties.

I remember, many years ago, that I was unable to talk. I had to overcome the difficulty that was involved in getting my tongue twisted around my teeth and not getting well formed words past my lips. If I hadn't known that difficulty, and if I hadn't found some way of overcoming it, I cer-

Address delivered at the Formula for Freedom presentation before the House of Delegates, Michigan State Medical Society, Grand Rapids, September 24, 1951.

tainly could not be standing here. There are other weaknesses of which I have not been aware during the years, which, if I had been aware of them, might have been overcome and corrected.

Put it as you will, the first step of that individual, as soon as he can do it with what help he can get at home and from others who know, is to know himself—to know his body, to take an inventory of himself.

His next step is to begin strengthening those possibilities through which he can make himself most useful; to overcome the weaknesses and the handicaps which would stand in the way of his executing or performing the stewardship that is vested in him; and thirdly, he has got to learn how to live with other folks. That grows out of knowing himself likewise, because unless he knows himself as well as knowing other people, certainly the next step, which is not a part of my talk, could never be accomplished.

Knowing himself—knowing the laws by which he must live—he is ready for the next step, because the individual alone can neither make nor keep himself free. Let me repeat at this point that freedom comes from God as a right to choose; but it isn't automatically a right that is in us. If it has any value, or if it has any significance, it is as the individual uses it. If he fails to use it, then, of course, he loses it.

It isn't enough merely to know himself and his capacity and his weaknesses and strong points, and make himself into the most able individual of which he is capable, but he must learn to adjust himself with other individuals, because a community must grow in order that freedom can be sustained.

I cannot enforce my freedom against you all by myself, neither can you enforce your freedom against me all by yourself. Consequently, we must have a community with laws and rules, which is the third important factor that will be discussed, as it should be. I am merely mentioning it.

The community must be developed as a means through which individuals can be helped to live with each other. It is only as each individual in that community makes himself fit for freedom—only as each individual in that community, on his own initiative, knowing himself as he is, directing himself, improving himself, develops himself so that he is capable of living with other people, that subsequently we can have a community which is fit for freedom.

Only as we develop communities which are fit for freedom can we eventually develop a nation which is fit for freedom. Let me illustrate this last point, because it is of some consequence:

In our own little town of Park Ridge, Illinois, we are very ardent believers in freedom. We are very ardent believers in what is known as "the American system of private enterprise." Eighty-five per cent of our people are business executives or professional people. We have no poor people in our community, and we have no rich people. It is a fine middle-class neighborhood or community of some 17,000 people, as fine a guinea pig as you could ask for with which to make experiments.

And yet, believing as ardently as we do in the thing that we know as private enterprise and individual freedom, in our own community we stretched out one hand like this, asking for a gift from the government, while at the same time we held out the other hand in horror at the idea of government taking over our responsibilities. That is where we are licked.

The answer to these things, gentlemen, is not in Washington ultimately. That is tremendously important. It is not ultimately in the State Capitol. Ultimately, it has got to begin with the individual. The individual himself must be willing to live a life of responsibility. He must be able to refrain from accepting those things which undermine his own stewardship—his own sense of responsibility.

Only when the individual, knowing himself, makes himself fit for freedom, can the rest of the process go on with the ultimate goal of a free nation.

MSMS

WHAT HAS HAPPENED IN TEN YEARS?

Over 13,000,000 people have died.

Over 17,000,000 marriages have taken place.

Over 30,000,000 babies have been born.

Over one-third of all present families in the U. S. have been formed.

Out of 150-odd million people in the U. S. today, 63 per cent do not remember World War I.

Fifty-two per cent do not remember a Republican administration in the White House.

Forty-eight per cent do not remember what conditions were like before World War II.

Editorial

THE SIXTY-FIVE-RETIRED PERSON PROBLEM

AT TIMES we have invited the problem of the prematurely retired person, aged sixty-five and over, to the attention of our members. In the early years when some of us were very much younger, the person over fifty was considered old. He retired from the active management of his business or farm in favor of his son. He could not see. He was more or less an invalid.

At the beginning of this century, only a small proportion of our population reached the age of sixty-five. We have improved our health, our living standards, and have decreased our morbidity and mortality by such degrees that now there are more than seven million people over sixty-five in the United States. And the average age at death now is approximately seventy. In a very few years over half our population will be over sixty-five.

Labor, through its collective bargaining, and a desire to assure jobs for the younger incoming generation which demands its chance, has established age sixty-five as a time for compulsory retirement. Industry has acquiesced. Government has furthered the program by many indications (old age security, income tax allowances, et cetera), and we are now witnessing the younger man assuming the responsibility of furnishing livelihood for the forcibly retired, perfectly healthy and competent man of sixty-five.

This problem, from a different angle, has attracted the attention of adult education leaders. In October, 1951, in Los Angeles, the first annual meeting of the Adult Education Association of the United States of America, Inc., had 567 delegates, fourteen from Michigan. Dr. Howard McClusky, Director of Community Education of the University of Michigan, was made the first President.

Among the new trends in adult education is training for the aging. This is an entirely new concept of *training* for the later years—not preparing for retirement but guiding to changing occupations more suitable to older people and aside from the occupations likely to interfere with younger people.

Educators, combining study forces with business and industrial leaders, have found that mandatory retirement is a dead loss to the country; their surveys show that those past the customary employment age of sixty-five can perform tasks which strengthen the nation both in peacetime and in time of national emergency.

This is important, for it may well be that a significant part of the reorientation of this large proportion of people will come from the teaching of the problems of temporary and permanent disability in our colleges and our medical schools. Medicine has accepted the treatment of the aging as a new specialty, Geriatrics, and is devoting much study and attention to the problem. Joining forces with another group of special interest serves to accentuate the duties and obligations essential to the well-being of an increasing number of our people. They deserve our care and solicitude. They are about to become a severe economic, sociologic and medical problem.

MEDICAL EDUCATION

VARIOUS ESTIMATES have been made of the costs of medical education, and the fact is freely admitted that the tuition and charges paid by the students come very far from meeting the monitary needs. All medical schools must have some other sources of financing. Endowments in the past have been a reasonable source of income. The present era of high government spending and borrowing, with the consequent low interest returns from trusts that formerly supplied much of the funds has completely changed the picture.

Many medical colleges are state owned, and as part of state universities or other locally sponsored schools receive their main support from local or state governments. This is logical. These schools have the obligation of supplying new doctors to replace those lost by death or retirement, and thus provide for the medical care of the people. The fast increasing costs and broadened scope of medical education have exhausted these sources, or at least sadly depleted them.

In the immediate past, the Federal Government has suggested taking over and supporting the med-

ical schools. Bills have been introduced into Congress to supply many millions of dollars for that purpose, as well as to establish new schools and produce doctors on a grand scale.

Experiences in other fields where the Federal Government has taken over a service or function have been unhappy. The Federal Government does a poor job (witness the Post Office service, the treatment of the American Indian, and others). There is also a Supreme Court decision that the Government may control what it subsidizes. How many of us want Oscar R. Ewing running the medical schools of this country? That is exactly what would happen.

The American Medical Association this year proposes that the profession finance its own medical schools and has made a half million-dollar donation. It has called upon its members to subscribe to this fund. It is suggested that if each doctor would contribute fifty dollars a year that would raise the estimated one million dollars needed annually. Some, of course, cannot pay fifty dollars, but there are enough others in sufficient numbers who could pay for more than one share, and thus meet the goal. Are you to be counted in?

STATE HOSPITAL ADMINISTRATION

STATE HOSPITAL superintendents are morally and legally responsible for living within their budget appropriations. The bill which provides the money to run their hospitals also makes it a *crime* for them to exceed their appropriations. At the same time, they are morally and legally responsible for the proper care of their patients.

If their budget appropriations are sufficient, there is no problem. But when the appropriation is insufficient, as it usually is, they find themselves impaled on the horns of a dilemma.

Fortunately, because of the caliber of the men in these positions the dilemma has usually been resolved in favor of the patients. Also fortunately, because of the caliber of the men in our Legislature the resulting deficits have been treated realistically not as crimes, but as necessary expenditures, and have been met by appropriations to cover the deficits.

However, this is a basically unsound if not dangerous method of operation, especially when the insufficiency of the appropriation is known at the time it is passed.

An item in point is the allowance for food for patients in our state mental hospitals. A minimally "adequate" food budget for such patients at budget time in May, 1951, cost 47 cents per patient per day. About 4 cents of this was supplied from government surplus commodities. This left 43 cents to be provided from state funds. But the Legislature actually appropriated 37 cents. (The cost today is 49 cents.)

The answer is obvious. The Legislature has too little money (state income) to spread over too many demands (state expenditures). It is the line of least resistance to try to fill the gap by cutting the "soft" items such as food. At least the figures balance on paper.

If the care of patients in our mental hospitals is a medical problem then this merits the active participation and interest of our State Medical Society through its Council, its mental hygiene and legislative committees at budget appropriation time. But even more can be done by individual physicians through contacts with their local representatives in the Legislature. Considering the nature of the problem it should not take more than a few words to alert each member of the Legislature to the need for appropriations sufficient to meet the basic food requirements of the patients in our state mental hospitals.

MENTAL HYGIENE COMMITTEE

FIFTY YEARS OF ACCOMPLISHMENT

WITH THIS number, we complete the fiftieth year of publication of THE JOURNAL of the Michigan State Medical Society. During the summer meeting of the Michigan State Medical Society in 1902, a complete reorganization of the Society was effected, making it a representative organization. This supplanted the previous organization with a small general membership, and having no continuity other than the annual meeting and the publication of its Transactions each year.

The new officers established a monthly medical journal to replace the yearly Transactions, thus establishing a continuity of purpose and a monthly contact among the membership. The first issue of THE JOURNAL appeared in September, 1902. The Michigan JOURNAL was the second State Society-owned medical journal. The present editor was a student in the office of the first editor, Andrew P. Biddle, M.D., and during Doctor Biddle's illness he published the December, 1905, JOURNAL, which was the fiftieth issue in THE JOURNAL's history.

Benjamin R. Schenck, of Detroit, was editor for the next four years, and Dr. Wilfrid Haughey succeeded him, beginning with the March, 1910, JOURNAL.

The one hundredth number was published in December, 1910, and in celebration THE JOURNAL splurged by publishing the pictures of all the past Presidents it was possible to assemble, thirty-one in all, with twelve missing. This present December, 1951, issue of THE JOURNAL, is Number 592. During all that time, we have seen the Society grow from less than 700 to 2100 in 1910, and now we have passed the 5,000 mark by two hundred.

Michigan has always been very active in proposing or adopting new ideas in the practice of medicine, or the economic or sociologic aspects of medical affairs, and has established many "Michigan Firsts," a listing of which we promise during the coming year. One of the most important is the program upon which we are now working and which was inaugurated at the September Annual Session of the House of Delegates—the "Formula for Freedom."

What the second fifty years of growth will accomplish no one can prognosticate. However, we have known this society for most of the passing half century, and judging from past history the Michigan State Medical Society will be well in the front in every advantageous endeavor bearing upon the medical, or socio-economic problems which cannot help but arise. During the immediate past, the Society has established Michigan Medical Service as its solution to the problems of our patients who needed to budget their health care. At the same time we (the doctors of medicine of Michigan) promulgated our solution to the extremely urgent demand for the socialization of the nation, medicine being the first target. Blue Shield is our creature, our shield against government medicine, and our assurance of good care to our patients. Its success is assured if used and administered with honesty and integrity by ourselves as well as the accredited officials.

We look to the future with confidence.

MSMS

The Treasury itself estimates that if the government actually *confiscated* all the income *not* now taxed from *all* those above the $10,000 bracket, the total revenue would not exceed 3½ billion, which is pitifully shy of the amount they aim to get. But below the $10,000 bracket is $68 billion nontaxed.

FUTURE DATES

The annual sessions of the **Michigan State Medical Society** are scheduled seven years in advance, as follows:

1952	Detroit	September 24-26
1953	Grand Rapids	September 23-25
1954	Detroit	Sept. 29-Oct. 1
1955	Grand Rapids	September 21-23
1956	Detroit	Week of Sept. 24
1957	Grand Rapids	September 20-22
1958	Detroit	Week of Sept. 22

The **Michigan Clinical Institute** is scheduled for Detroit six years in advance, as follows:

1952	Detroit	March 12-14
1953	Detroit	March 11-13
1954	Detroit	March 10-12
1955	Detroit	March 9-11
1956	Detroit	March 8-10
1957	Detroit	March 13-15

ON THE RUN . . .

In shock without respiratory difficulty the anoxia is overcome more promptly by blood and blood substitutes than by oxygen.

• • •

Sugar is the most unbalanced of all the commonly used foods.

• • •

Vitamin B_{12} in weekly doses of at least 40 micrograms is as effective as liver extract in subacute combined degeneration of the spinal cord.

• • •

Alcohol is not as effective as nitroglycerin in angina because it produces a sedative and psychogenic action rather than relief of myocardial ischemia.

• • •

Carcinoma of the body or tail of the pancreas metastasizes more readily and extensively than when it involves only the head of the pancreas.

• • •

There are fewer adult than child stutterers because the former have adjusted to the difficulty.

• • •

Mediastinal emphysema should be ruled out in all cases of left-sided spontaneous pneumothorax.

• • •

A fall in blood pressure of 20 to 40 mm. of mercury usually accompanies relief of dyspnea by oxygen therapy which may be risky when hypotension exists.

• • •

Intervertebral disk rupture should be suspected if paravertebral pressure reproduces radiating pain.

• • •

There is no specific method for handling coccidioidal infections, only symptomatic treatment and rest.

• • •

To prevent transmission of serum hepatitis, laboratory workers should avoid getting blood on the hands and should wash the hands immediately after contact with human blood or its fractions.

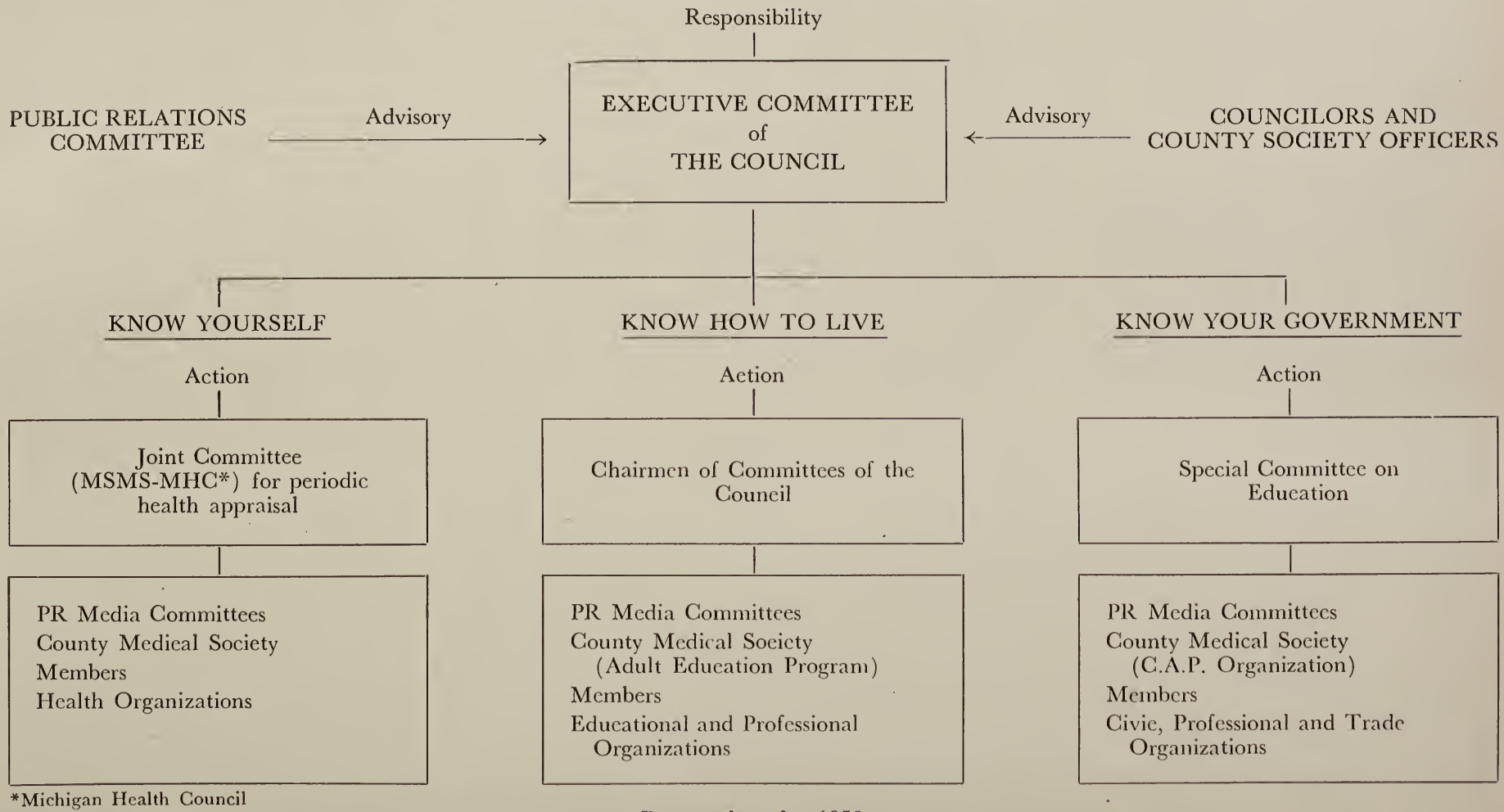
• • •

Structural damage to the pancreas is permanent.

—Selected by W. S. REVENO

(Organizational Chart)

FORMULA FOR FREEDOM



*Michigan Health Council

Preparations for 1952

To date, the program has been conceived by the Public Relations Committee, approved by The Council, presented to the House of Delegates and planned by Executive Committee of The Council. A series of articles is appearing in the JMSMS, county and district medical societies have been offered speaking talent for "Formula for Freedom" nights, a "Formula for Freedom" kit is being prepared, public relations media committees are meeting, and presentations are being made to other state organizations and to the American Medical Association.

FORMULA FOR FREEDOM

A Formula That Works for All

(Part I)

Michigan medicine has long sought:

1. A means of girding all its forces under a single banner in order to have maximum public relations impact.
2. A workable common denominator for liaison with other organizations whether they are Health, Educational, Civic, Professional or Trade, in character.
3. A symbol that would obviously dedicate the service activities of the medical profession toward helping the individual help himself.

Michigan medicine has found these means, that denominator, the symbol—

The Formula for Freedom

Know Yourself Know How to Live Know Your Government

It is not a preachment: it's a practice.

The Formula applies to you and your organization: it applies to your neighbor and his organization.

Know Yourself

Freedom is defined as a "state of being independent, of ease in performance, *a particular privilege.*" Anything, be it an insidious weakness or an overbearing strength that substracts from independence, inhibits ease of performance or reduces the privilege, removes a certain degree of freedom. Ill health, inadequate social and religious life, financial trouble and legal difficulties all remove a degree of freedom. This is obvious: it is evidenced every day of our lives through both personal experience and observation. Consequently, since we believe in the responsibility of the individual for his own welfare, it is vital that each individual know himself in order that he may take the most effective action within his ability to protect himself against those things which would remove his freedom.

That is what the "Know Yourself" element of the Formula for Freedom proposes to help the individual to do.

Here is how it is proposed that this be accomplished.

MSMS Action

The Michigan State Medical Society has appointed a joint committee with the Michigan Health Council—the Joint Committee (MSMS-MHC) to study the Periodic Health Appraisal.

This Committee is responsible under the Executive Committee of The Council for the direction of work under the Know Yourself element. Its first activity will be to develop the form and concept of a Periodic Health Appraisal. Their work will continue toward the end of making this concept common knowledge among the doctors of medicine in Michigan. The Committee will then co-operate in making the form of the Periodic Health Appraisal available to large numbers of persons in Michigan.

It is proposed that the concept be given to the MSMS membership through articles in the JMSMS and other medical Journals. In addition, a special pamphlet or a 16 mm motion picture may be used to disseminate this information.

The form for the Periodic Health Appraisal will be one page in length and will be accompanied by three other pages each of which will be devoted to one of three other appraisals—Personal Social-Religious Appraisal, Personal Economic Appraisal and Personal

(Turn to next Page)

Formula For Freedom

(Continued)

Legal Appraisal. These pages will be prepared in collaboration with other representative professional organizations.

The four pages will constitute a check list for the individual to complete. Upon their completion, it should give the individual a reasonably accurate accounting of himself in these four basic fields of living.

It is planned that the four-page leaflet will be made available to the general public through their doctors, lawyers, bankers, pastors, insurance men, service clubs, unions, etc. It is to be kept by the individual and referred to periodically in order that he may better *know himself.*

In addition to the work described above it is the intent of the plan that the Joint Committee (MSMS-MHC) to Study the Periodic Health Appraisal will also head an effort to emphasize the importance of the health of the complete individual rather than any single portion or disease.

It hopes to gain the support of the various health organizations (Heart, Cancer, T.B., etc.) in this movement so that whereas the health organizations do not de-emphasize their own program of detection or education, they acknowledge the greater importance of the complete health picture rather than any segment thereof.

All scientific committees of the MSMS will be asked to contribute either directly or through their individual members to the development of this valuable program.

Each county medical society will be asked to acquaint its members with the program.

Each member of the MSMS will be asked to co-operate in the information and promotion of the "Know Yourself" element.

Every step that will emphasize the individual's responsibility for himself will be one step away from socialism.

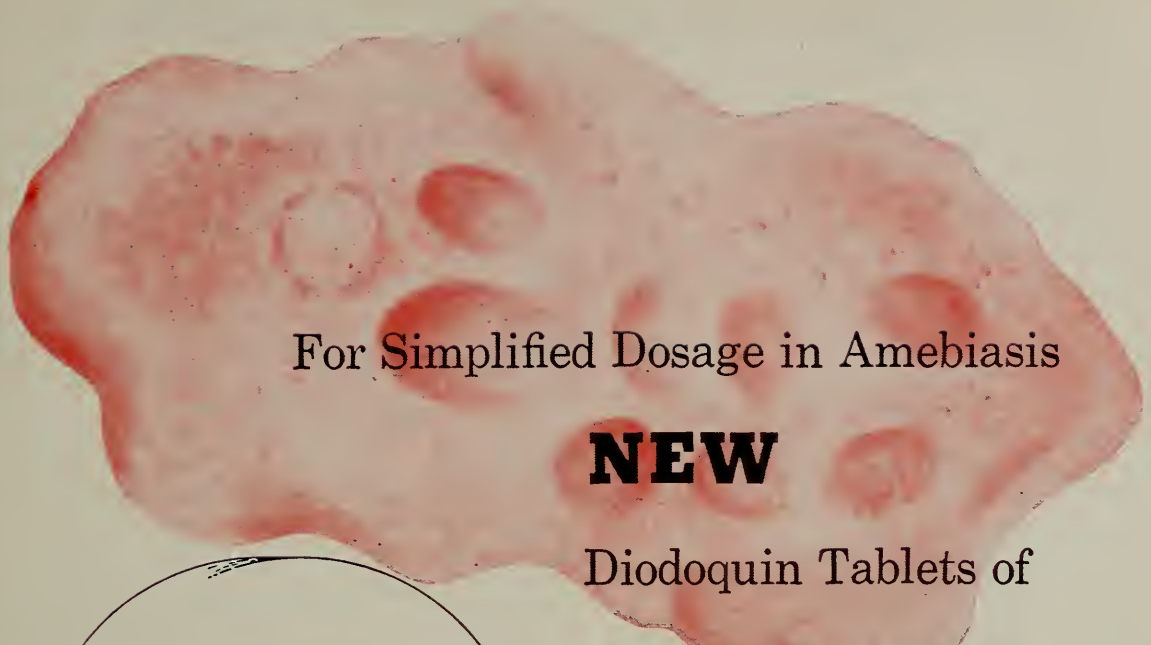
(See page 1427 for the article, "Know Yourself," by Dr. Alfred P. Haake. An article on the second element of the Formula for Freedom—"Know How to Live" will appear in the January issue.)

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

The Department of Postgraduate Medicine
Brief Review Courses for Practicing Physicians
1952

Anatomy	(Thursdays)	Feb. 14-May 29
Internal Medicine		
Clinical Internal Medicine	(Thursdays)	Jan. 10-April 17
Diseases of the Heart		March 17-21
Rheumatic Diseases		March 24-28
Metabolism and Endocrinology		March 31-April 4
Diseases of Blood and Blood-Forming Organs		April 7-11
Diseases of Gastro-Intestinal Tract		April 14-18
Recent Advances in Therapeutics		April 28-30
Allergy		May 5-9
Electrocardiographic Diagnosis		August 25-30
Neurology, Clinical		May 5-7
Obstetrics & Gynecology	Obstetrics	Jan. 9-12
	Gynecology	Feb. 6-9
Ophthalmology		April 21-23
Roentgenology, Diagnostic		April 7-11
Summer Session		June 23-August 2

Further information and application blanks may be obtained from Dr. H. H. Cummings, Chairman, Department of Postgraduate Medicine, University Hospital, Ann Arbor, Michigan.



For Simplified Dosage in Amebiasis

NEW

Diodoquin Tablets of

10 GRAINS

(650 mg.)

SEARLE

With the introduction of a new 10-grain (650 mg.) tablet of Diodoquin, the number of tablets necessary for treatment of amebiasis can be reduced from ten a day to three a day.

Thus the twenty-day recommended dosage schedule is accomplished with a total of 60 instead of 200 tablets. The cost to the patient is reduced accordingly.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

A potent oral amebacide— **DIODOQUIN®**

(*diiodohydroxyquinoline*)

—is a well-tolerated, relatively nontoxic compound containing 63.9 per cent of iodine.

Now available in tablets of:

3.2 grains (210 mg.), bottles of 100 and 1,000
10 grains (650 mg.), bottles of 60 and 500

Be sure to prescribe the 10 gr. (650 mg.) size for full adult dosage.

SEARLE RESEARCH IN THE SERVICE OF MEDICINE

Say you saw it in the Journal of the Michigan State Medical Society

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

A mass-scale survey of health conditions in all new industrial plants in the Upper Peninsula has been completed by a survey group from the Division of Industrial Health. The group also made follow-up studies in other Upper Peninsula industries in which initial surveys were made a year earlier.

Silicosis is the major industrial health problem in the Upper Peninsula, with welding fumes in second place, the survey shows.

Compliance with recommendations for improvements in the Upper Peninsula industries is good—better than in major industrial centers in the Lower Peninsula, follow-up revealed.

* * *

A member of the staff of the Industrial Health Division has now completed advanced study in radiation hazards in industry and in civil defense. He has received specialized training in the use, care and repair of monitoring instruments and in safe practices in the handling of radioactive materials. His services are available throughout the state.

* * *

The Michigan Department of Health has contracted with the American Red Cross to collect and ship blood to be made into dry plasma for use for national defense. The first shipment was made early in November.

* * *

A. B. Mitchell, M.D., has resigned as director of the Shiawassee County Health Department to become director of the Allegan and Van Buren County Health Department.

* * *

Baby's Day Cards dealing with the care of the baby and his development from a physical, mental and social standpoint for six periods from birth through six years of age have been prepared by the Section of Maternal and Child Health and approved by the Child Welfare Committee of the Michigan State Medical Society.

Physicians who wish to use the attractive new *Baby's Day Cards* can obtain them through their local health departments.

* * *

Health problems of the aging are featured in the November issue of Michigan Public Health. Diseases, accidents and nutritional difficulties are among the subjects discussed. Michigan's changing population trends are pointed out. An article from the State Department of Social Welfare tells of public assistance available for the health of the aging, and one from the Department of Mental Health tells of ways of improving the mental health in the later years. Copies of the issue may be obtained without charge from the Michigan Department of Health.

One out of every ninety-six people who had their chests x-rayed at Michigan's 1951 fairs had suspected tuberculosis.

Mobile tuberculosis case-finding units of the Michigan Department of Health, operating at twenty-three fairs this summer and fall, x-rayed the chests of 53,982 persons and found 1,124 chest abnormalities, including 560 cases of suspected tuberculosis.

Where the small x-ray film indicated a chest abnormality, the individual was advised, by mail, to see his physician for a complete study and any needed treatment.

A summary of the 1951 county fair survey follows:

County Fairs	*Total number x-rayed*	*Number with chest abnormalities*	*Number with suspected tuberculosis*
Alpena County Fair, Alpena	3,447	57	27
Arenac County Fair, Standish	1,118	29	11
Barry County Fair, Hastings	1,623	27	8
Branch County Fair, Coldwater	3,751	74	38
Central Michigan Fair, Big Rapids	1,401	35	19
Charlevoix County Fair, East Jordan	835	16	2
Clare County Fair, Harrison	859	23	9
Eaton County Fair, Charlotte	1,749	55	25
Emmett County Fair, Petoskey	1,778	38	15
Gladwin County Fair, Gladwin	835	24	12
Hillsdale County Fair, Hillsdale	2,935	69	35
Ionia Free Fair, Ionia	2,253	74	33
Iosco County Fair, Hale	294	8	3
Isabella County Fair, Mt. Pleasant	3,140	59	30
Jackson County Fair, Jackson	1,166	13	5
Lenawee County Fair, Adrian	3,637	78	43
Michigan State Fair, Detroit (2 units)	11,903	214	128
Midland County Fair, Midland	3,186	47	22
Monroe County Fair, Monroe	1,900	34	22
Northern Michigan Fair, Cheboygan	2,010	33	18
Oceana County Fair, Hart	938	19	9
Osceola County Fair, Evart	462	4	2
St. Joseph County Fair, Centreville	2,762	94	44
TOTAL	53,982	1,124	560

* * *

Seven-year interim examinations of the teeth of Grand Rapids and Muskegon school children participating in the Fluoridation Project were completed early in November. The project, jointly conducted by the Department of Health, the University of Michigan and the Public Health Service, is showing results which are influencing hundreds of cities to plan for fluoridation of their public water supplies.

* * *

State Health Commissioner Albert E. Heustis upheld mass blood typing for civilian defense in a national radio panel planned by the American Medical Association and the National Civil Defense in connection with the national Medical Civil Defense Conference in Chicago early in November. At the Conference which included representatives of state health departments, medical societies, hospital associations and civil defense from each state, Dr. Heustis was chairman of a dis-

cussion group on organizing and equipping an improvised hospital system for civil defense.

* * *

To discuss, analyze and seek out solutions for mutual problems, local health department personnel of three regions of the state met in regional conferences during November—the Southeastern District in Detroit; the Southwestern District in Kalamazoo; and the Northern District in Gaylord.

The Regional Conferences not only work out health problems of a regional nature on a regional basis but in addition integrate their programs with those of other regions and with the state health program. Staff members of the Michigan Department of Health served as consultants.

* * *

To help medical record librarians of Michigan's hospitals with their problems on the completion and registration of birth records, the Chief of the Section of Vital Records of this Department spoke at the meeting of the Michigan Chapter of the American Association of Registered Medical Librarians in Detroit. November 10.

OPERATION FOR COARCTATION OF AORTA IN OLDER PATIENTS

(Continued from Page 1426)

more marked in the collateral arteries than in the aorta itself. Because of this fact, operation in selected older patients seems to be a justifiable and desirable procedure.

Summary

1. Three patients with coarctation of the aorta in the older age group have been operated upon. Their ages were thirty, forty and forty-two years, respectively.

2. Marked visible atherosclerotic plaques were present in the collateral circulation in two of these patients; however, no plaques were seen in the aorta itself in either case.

3. One patient had an aneurysm of an intercostal artery which was resected.

4. All patients survived the operation and seem to have been markedly improved.

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Thorough investigations have definitely established the *ancillary* therapeutic value of ultraviolet radiation in a great variety of diseases. Ultraviolet irradiation is *specific* for lupus vulgaris and for prevention of rickets by prenatal (entire body) radiation for the mother and nursing mother.

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In Memoriam

James B. Blashill, M.D., of Detroit, died at his home in Detroit, October 6, 1951, at the age of forty-seven.

Dr. Blashill was graduated from the University of Michigan Medical School in 1930, and practiced medicine in Detroit for sixteen years. He was a general surgeon, serving on the staff of the East Side Hospital. He was active in the Wayne County Medical Society.

Dr. Blashill was a veteran of the Medical Department of the Army in World War II.

He is survived by his wife, Blanche; three daughters, Joyce, Ann and Mary, a son, James, two brothers, and a sister.

* * *

Robert L. Dixon, M.D., of Caro, died September 24 in the University Hospital, Ann Arbor, at the age of seventy-four.

For the past thirty-seven years he served as superintendent of the Caro State Hospital. Dr. Dixon became medical superintendent on February 1, 1914, after resigning his post as state health commissioner. He held the position, except for the period between 1930 and 1937, until his retirement in 1949; from 1930 to 1937 he was superintendent at the Lapeer State Home and Training school.

Dr. Dixon was born May 23, 1877, in Angola, Indiana. He was graduated from Tri-State college, Angola, Indiana, and from the University of Michigan Medical School.

After receiving his medical degree in 1910 at the age of twenty-three, he taught in the University Medical School. He became state health commissioner on July 1, 1911.

He was a member of the Tuscola County Medical Society and a Life Member of the Michigan State Medical Society.

Dr. Dixon, a widely known specialist on epilepsy, served as president of the National Association for the Study of Epilepsy; he was a Fellow and a member of the Council of the American Psychiatric Association, and also a charter member of the American Epileptic League. Dr. Dixon was a diplomate of the American Board of Neurology and Psychiatry.

The many community activities of Dr. Dixon included his charter membership in the Caro Rotary club of which he was president for two years; he was an honorary member of Rotary at the time of his death. Other activities included an interest in the establishment of the Caro Community Hospital, membership on the Hospital Commission, and membership for a number of years on Indianfields Township library commission.

He was successively a director, vice president and president of the State Savings Bank, receiving the latter position last April.

Dr. Dixon is survived by his wife Mabel; a son, Robert L. Dixon, Jr., a professor in the School of Business Administration, University of Michigan, Ann Arbor; a daughter, Mrs. Richard J. Stamberger, of Detroit; three grandchildren, and one sister, Mrs. Olive Reuter, Ft. Wayne, Indiana.

* * *

W. Bede Mitchell, M.D., of Detroit, died October 20, 1951, at the age of fifty-three.

At the time of his death, Dr. Mitchell, an obstetrician for more than a quarter of a century, was vice chief of staff in obstetrics and gynecology at Grace Hospital.

After graduating from Yankton College in South Dakota, he received his medical degree from Wayne University College of Medicine in 1925, and interned at Providence Hospital. Before going to Grace Hospital he was a resident physician at Herman Kiefer Hospital.

Dr. Mitchell was a member of Phi Rho Sigma medical fraternity and of the Michigan Society of Obstetricians and Gynecologists. He was also editor of the *Grace Hospital Bulletin*.

He was a medical officer in the South Pacific in World War II; he also served in the medical corps in World War I.

Dr. Mitchell is survived by his wife Juanita, and four sons, W. Bede, Jr., Stuart, John and William.

* * *



Henry John Pyle, M.D., Grand Rapids, died August 27, 1951, at his home in Grand Rapids at the age of sixty-nine.

For the past forty-two years Dr. Pyle served the community of Grand Rapids as a general surgeon as well as industrial surgeon for the Nash-Kelvinator Company. He opened his office in Grand Rapids in 1907 after his graduation from the Detroit College of Medicine.

Dr. Pyle was Chief of the Medical Staff of Blodgett Memorial Hospital in 1933 and 1934 and was a member of the staffs of Butterworth and St. Mary's Hospitals in Grand Rapids.

He was a past president of the Michigan Association of Industrial Physicians and Surgeons and a past president of the Kent County Medical Society. He was Speaker of the House of Delegates of the Michigan State Medical Society for six years, serving as a member of that body for ten years.

Dr. Pyle is survived by his wife, Frances; two daughters, Mrs. James M. Idema, of Grand Rapids, and Mrs. R. Lynwood Baldwin, Jr., of Durham, N. C.; three brothers, J. Nelson, of Detroit, Raymond, of Bristol, Wisconsin, and Dr. Wynand V. K. Pyle of Los Angeles; a sister, Mrs. Nellie Jekel, of Zeeland, and six grandchildren.

George A. Shaw, M.D., of Manistique, died October 1, 1951, at the age of fifty-six. He had served the community of Manistique for the past twenty-four years.

Dr. Shaw was graduated from Northwestern University Medical School, Chicago, in 1925. He served his internship at Harper Hospital, Detroit.

Dr. Shaw was a member of the Delta-Schoolcraft Medical Society and was a fellow of the American College of Surgeons. He was chairman of the medical staff of Schoolcraft Memorial Hospital and one of the Upper Peninsula directors of the American Cancer Society.

Besides his activity in medical circles, Dr. Shaw took part in fraternal and civic affairs of his community. He was a member of the Manistique Board of Education, a past president of the Manistique Rotary Club as well as a former District Governor of Rotary International. He was also a past director of the Manistique Chamber of Commerce.

During World War I, he served in a medical group attached to the 51st Gordon Highlanders, famous "Ladies from Hell" unit of the British Army; he was in service for two and one-half years.

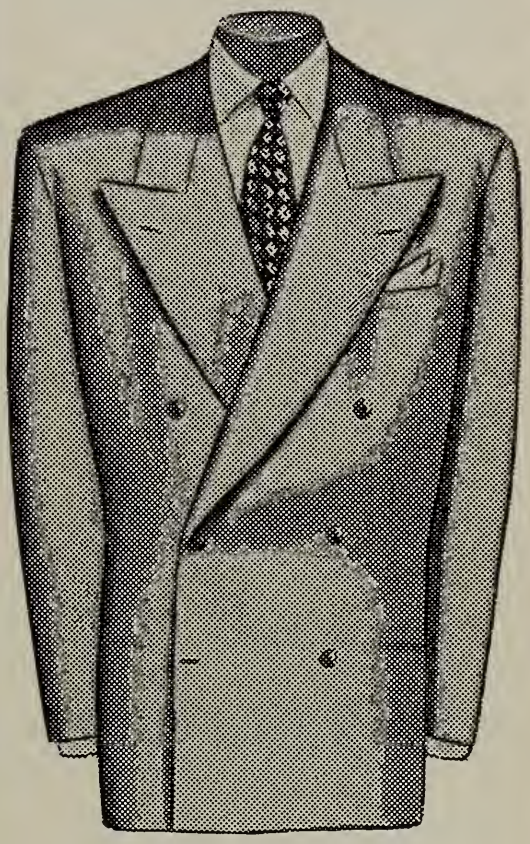
He is survived by his wife, Isabella, and two sons—Patrick George, of Alma, and Thomas Michael, of Waukesha, Wisconsin. He also leaves his mother, who resides in Manistique.

RENAL AND NEUROGENIC FACTORS IN HYPERTENSION

(Continued from Page 1423)

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Communications

September 20, 1951

Wm. J. Burns, Executive Director
Michigan State Medical Society
606 Townsend Street
Lansing 15, Michigan

Dear Mr. Burns:

Reference is had to your communication of September 17 relative to the inquiry made concerning the liability of patient or attending physician for payment of consultant's services.

The legal question is one of implied authority. Does an attending physician have authority to engage on behalf of his patient the services of a consultant, without express authority or consent of the patient? As far as we are able to determine, this specific question has never been directly passed on by any appellate court. There are no cases in point in the Michigan Reports. Nor do more general works, such as American Jurisprudence, Corpus Juris Secundum, A. L. R., text books on medical jurisprudence, cite any cases covering the question. Indeed, we have been unable to find even a text book or encyclopedical comment on the exact point.

One must, therefore, have resort to general principles of the law of agency and doctor—patient relationship to reach a reasonable conclusion, which may, however, not coincide with the opinion of a court were the situation brought into litigation.

Unfortunately, the facts furnished are not sufficiently exhaustive to differentiate the problem at hand from other similar ones in which the facts may alter the conclusion.

In many cases, when a patient engages a doctor to treat and attend him, there is implied authority to commit the patient to certain expenses and even services by others, e.g., making x-ray plates by technicians or roentgenologists, or in surgical operations the services of anesthetist and surgical nurse. Certainly, when a medical emergency arises and the patient is unconscious, or is not in condition to discuss the situation, the attending physician has implied authority to do what in his judgment is medically indicated on humanitarian grounds. However, there is grave doubt that in ordinary cases the attending physician is authorized to engage a consultant, perhaps a high-priced one, without express consent of the patient, if the patient is in condition to give such authority or consent. In other words, it is doubtful that the mere engagement of a physician to diagnose or treat a patient gives such physician blanket authority to engage other physicians without the patient's express consent. As pointed out, emergent peculiar circumstances may tend to ameliorate this conclusion, but the facts furnished do not indicate such unusual situation. The mere fact that the patient did not object when the consultant examined him is not sufficient, in my opinion, to be regarded as consent to pay for his services. It is not uncommon for physicians to call in professional colleagues to view unusual cases, and a patient cannot be presumed to have engaged the services of an additional physician merely because he didn't object to his viewing or even examining him.

It is my conclusion, therefore, that unless there were some unusual circumstances not disclosed in your letter, the patient is probably not liable for the consultant's fee. It follows that the attending physician is the one to whom the consultant must look for his compensation.

Very truly yours,

J. Joseph Herbert
Legal Counsel
Michigan State Medical Society

* * *

October 29, 1951

Dear Doctor:

We previously announced that effective October 1, 1951, Diagnostic X-ray benefits under Michigan Medical Service surgical and medical-surgical certificates were being liberalized.

In the interest of clarification, it is necessary to make certain changes in the Diagnostic X-ray rider. A copy of the revised rider, 50-105R1, is attached.

There seems to be a considerable amount of misunderstanding regarding the liberalization of diagnostic x-ray effective October 1, 1951. It should be borne in mind that all other conditions of the contract remain as they are, even as to the circumstances under which diagnostic x-ray is a benefit.

The Diagnostic X-ray Liberalization is intended *only to eliminate the $15.00 maximum limit per certificate year.* It does not liberalize or broaden the conditions under which a diagnostic x-ray service qualifies as a benefit.

I. Item 4(a)1 of the rider is interpreted as follows:

1. Diagnostic x-ray benefits per fee schedule to the value of $15.00 are available per bed patient *admission.*

   Example 1.
   A subscriber is admitted on 10-2-51 and discharged 10-12-51. X-rays are taken to the fee schedule value of $10.00. Michigan Medical Service pays $10.00. The subscriber is again admitted as a bed patient on 10-21-51, either for the same or for a different medical cause and x-rays are taken to the fee schedule value of $15.00. Michigan Medical Service will now pay the fee schedule of $15.00 under the liberalization rider.

2. The wording "during or thirty (30) days prior" permits liberalization for diagnostic x-rays taken within 30 days prior to an admission for an

eligible related service but restricts the total value to $15.00.

Example 2.

A subscriber has x-rays taken in the Doctor's office or out-patient department on October 2, 1951 equal to a fee schedule value of $15.00 and is subsequently admitted as a bed patient for an eligible related service. During the period of hospitalization, x-rays are taken to the fee schedule value of $15.00. The x-rays taken prior and during the hospital stay are considered one disability and Michigan Medical Service will pay only to the fee schedule value of $15.00. The x-rays taken in the out-patient department of a hospital or in a Doctor's office must be reported to Michigan Medical Service before the patient is admitted to the hospital or the x-rays taken during the hospital stay will have priority for the benefit.

II. Item 4(a)2 defines the conditions under which diagnostic x-rays are a benefit when the subscriber is other than a bed patient.

1. Each separate disability is defined to mean a complete incidence of service and is not a restriction for a continuing medical condition. It is necessary, however, that the x-ray be related and rendered in connection with an eligible office or out-patient surgical procedure or in connection with emergency accident care within the 24-hour limitation.

Example 1.

On October 8, 1951, a subscriber has an x-ray in the Doctor's office or out-patient department in connection with the removal of Aural Polyps. Michigan Medical Service pays a $10.00 x-ray benefit. On October 22, the patient has a $10.00 x-ray in connection with a Submucous Resection. Michigan Medical Service will again assume x-ray charges per schedule up to $15.00. The fact that both services were related to the same medical cause has no bearing in the case. The x-rays to the value of $15.00 were available in connection with each eligible incidence of service.

Example 2.

A subscriber received emergency accident care in a Doctor's office or in the out-patient department involving an x-ray benefit of $10.00 within 24 hours from the time of the accident and subsequently requires bed patient care. During the period of hospitalization he would again be entitled to receive x-ray benefits to the value of $15.00.

Very truly yours,

R. L. Novy, M.D.
President
Michigan Medical Service

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October 25, 1951

Wilfrid Haughey, M.D.
Editor, JMSMS
610 Post Building
Battle Creek, Michigan

Dear Doctor Haughey:

Since the organization of this Committee, little has been done to acquaint the physicians and hospitals of the State with the important duties we have to perform. To combat this, we issued two bulletins to all hospitals, which appeared in the October 22 issue of the *Detroit Medical News*.

It is just as important to acquaint all physicians with this program as well as those directly connected with the hospitals. It is therefore, our thought that if these bulletins were placed in THE JOURNAL, this information would reach the medical profession throughout the entire State.

We enclose copies of these bulletins, and request your consideration in favor of having them run in THE JOURNAL, which would be much appreciated.

Sincerely yours,

GROVER C. PENBERTHY, M.D.
Chairman,
Michigan Volunteer Advisory
Committee to Selective
Service System

* * *

BULLETIN NO. 1

To: All Hospitals in the State of Michigan
Subject: The organization and duties of the Michigan Volunteer Advisory Committee

In seeking closer co-operation between hospitals in the State, and the Michigan Volunteer Adivsory Committee, it is thought that few have a clear understanding of the reason for the establishment and duties of this Committee. Therefore, this bulletin is being issued to clarify these questions.

1. ORGANIZATION:

Public Law 779—81st Congress, an Act to amend the Selective Service Act of 1948 so as to provide for special registration, classification, and induction of certain medical, dental, and allied specialist categories, was approved and passed by Congress September 9, 1950. The following excerpt is quoted from this Law:

"(j) The President shall establish a National Advisory Committee which shall advise the Selective Service System and shall co-ordinate the work of such State and local volunteer advisory committees as may be established to co-operate with the National Advisory Committee, with respect to the selection of needed medical and dental and allied specialist categories of persons as referred to in subsection (i). The members of the National Advisory Committee shall be selected from among individuals who are outstanding in medicine, dentistry, and the sciences allied thereto, but except for the professions of medicine and dentistry, it shall not be mandatory that all such fields of endeavor be represented on the committee.

"In the performance of their functions, the National Advisory Committee and the State and local volunteer advisory committees shall give appropriate consideration to the respective needs of the Armed Forces and of the civilian population for the services of medical, dental, and allied specialist personnel; and, in determining the medical, dental, and allied specialist personnel available to serve the needs of any community, such committees shall give appropriate consideration to the availability in such community of medical, dental, and allied personnel who have attained the fifty-first anniversary of their birth."

When the National Advisory Committee was appointed by the President of the United States, it, in turn, appointed a Volunteer Advisory Committee in each State in the Union. Hence, the Michigan Volunteer Advisory Committee was appointed by Washington and consists of four members:

Grover C. Penberthy, M.D., Chairman
Albert E. Heustis, M.D.
J. Orton Goodsell, D.D.S.
C. F. Clark, D.V.M.

To care for the interests of all communities in the State, a local Committee was established for each County under the direction of the State Chairman.

The State Committee is responsible to the National Advisory Committee. The County Committees are responsible to the State Committee.

2. DUTIES AND RESPONSIBILITIES:

Before a physician can be inducted into the Armed Services, his Local Draft Board must obtain the recommendations of the State Committee pertaining to his essentiality or availability.

Similarly, all branches of the Armed Services, such as the Army, Navy, Air Force, Marine Corps, Coast Guard or the Public Health Service, are required to obtain a recommendation from the State Committee pertaining to a Commissioned Officer's essentiality or availability before calling him to active duty.

All requests by hospitals and schools for delay in orders for a special registrant, must be channeled through the State Committee. This also applies to communities where a physician is considered essential to the health and welfare of that community.

The State Committee depends on the local Committee of each County to furnish the necessary information pertaining to a physician's essentiality.

There have been one or two instances in the past where hospitals or individuals went direct to Headquarters Fifth Army requesting deferment for a Commissioned Officer after he had received orders to active duty. A deferment was granted by Headquarters Fifth Army without having the recommendations of the State Committee. This Committee was questioned by Washington concerning the deferment, but not having made the request we were unable to give the reason. As a result, all branches of the Armed Services have been notified that deferments cannot be granted on grounds of essentiality without first obtaining the recommendations of the State Committee.

When a physician is considered essential to a hospital or school, a letter from the hospital fully stating the reason for his essentiality must be submitted to the State Chairman, accompanied by a letter of acquiescence from the physician. The case is then presented to the local County Committee for their recommendations. If the County Committee recommends deferment, the State Chairman then requests the branch of the service concerned to give consideration to a delay in orders. In the case of a non-commissioned physician classified I-AM, the request for reclassification is directed to the Selective Service System.

Generally speaking, the various branches of the Armed Services honor the recommendations of the State Committee and grant a deferment when requested. In some instances, however, the request has been rejected.

The National Advisory Committee in Washington receives a list of call-ups for each month from all branches of the Armed Services. They are also notified by these

branches of deferments granted to individuals on the basis of essentiality. The National Committee in Washington does not always concur in the recommendations made by the State Committee, and in such instances will call in all records pertaining to the case for review. In the case of hospital staff, this includes staffing a year ago, and two years ago, the department involved, and by totals. In the case of communities, complete details as to the situation must be submitted.

From the foregoing you will understand that this office has been established by the Federal Government, and is being run unlike anything of a similar nature set up during World War II. We come directly under the dictates of Washington. With this information it is hoped that our position will be clarified.

GROVER C. PENBERTHY, M.D.
Chairman

October 5, 1951

BULLETIN NO. 2.

To: All hospitals in the State of Michigan
Subject: Replacements for priority I physicians

Many hospitals in the State have a number of Priority I physicians on their full-time staff and in residency training programs. Under Public Law 779, all Priority I physicians must be called for active duty before Priority II is called.

The National Advisory Committee in Washington issued a Bulletin dated August, 1951, in which they state that all Priority I must be depleted by July, 1952. They urge that these physicians be replaced by this date, including those who have been reclassified II-A. Similarly, the men who are already commissioned, and whose call to service has been delayed, should be released as soon as possible. We must therefore ask you to make a serious effort to seek replacements for all Priority I physicians so that they can be released not later than July, 1952.

We are informed that the American Medical Association has established a new residency information service, and hospitals seeking residents in any particular field may take advantage of this service. In the event no replacement is possible, all information pertaining to the case will be forwarded by this office to the National Advisory Committee for their review.

We are anxious to co-operate to the fullest extent with all hospitals, but it is thought there are some instances where sufficient effort is not being made to secure replacements.

Your co-operation with this Committee will be deeply appreciated.

GROVER C. PENBERTHY, M.D.
Chairman

October 9, 1951

* * *

November 9, 1951

Dr. Wilfrid Haughey, Editor
Battle Creek, Michigan

Dear Wilfrid:

For some time I have been meaning to write you in congratulation and appreciation of the October number of THE JOURNAL featuring the Michigan Foundation.

I have rarely seen a more adequate, better organized or more dignified informative article than "Leading in Learning." For the type of individuals or interested groups that we should be approaching, it would seem to me that this article deserves reprinting and proper distribution.

It is not only that we expected more contributions from the doctors but we hoped for more effort on the part of the doctor in getting contributions from his friends and patients. Some of us have been able to pick

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Surgical Technic, Surgical Anatomy and Clinical Surgery, four weeks, starting March 3, June 2.
Surgical Anatomy and Clinical Surgery, two weeks, starting March 17, June 16.
Surgery of Colon and Rectum, one week, starting March 3, April 7.
Gallbladder Surgery, ten hours, starting April 21.
Basic Principles in General Surgery, two weeks, starting December 10, March 31.
Breast and Thyroid Surgery, one week, starting June 23.
Esophageal Surgery, one week, starting June 23.
Thoracic Surgery, one week, starting June 2.
GYNECOLOGY—Intensive Course, two weeks starting February 18, March 17.
Vaginal Approach to Pelvic Surgery, one week, starting March 3, March 31.
OBSTETRICS—Intensive Course, two weeks, starting March 3, March 31.
MEDICINE—Intensive General Course, two weeks, starting May 5.
Electrocardiography and Heart Disease, two weeks, starting March 17.
Gastroenterology, two weeks, starting May 19.
Hematology, one week, starting June 16.
UROLOGY—Intensive Course, two weeks, starting April 28.
Ten-day Practical Course in Cystoscopy, starting January 7, January 21, and every two weeks.
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up some immediate contribution and, once in a while, the positive statement that the individual had arranged for it in his will. We need a lot more. Perhaps this article will serve as something of a stimulant.

Congratulations again on a mighty good article.

Very sincerely yours,
BURTON R. CORBUS

BENEFICIARIES OF FEDERAL GOVERNMENT

In 1932, there were 2,196,151 individuals receiving monthly checks from the Federal Government. Today, nineteen years later, the total of 17,665,783. The 1951 recipients, taken from the Congressional Record, are divided as follows:

Federal civilian workers	2,409,121
Federal retired workers	166,081
Old-age assistance	2,766,866
Dependent children	1,639,107
Federal aid to blind	95,521
Disabled children	70,745
Public assistance	418,000
Old-age pensions	3,605,235
Veterans' pensions	2,368,238
Veterans' dependents	658,123
Military personnel	3,300,000
Retired military pensions	135,923
Coast Guard personnel	26,498
Coast Guard pensions	6,325
Total	17,665,783

—*Detroit Free Press,* Tuesday, Sept. 25, 1951.



. . . . . NEWS MEDICAL

James Milton Robb, M.D., Detroit, Past President of the Michigan State Medical Society, is the incoming President of the American Academy of Ophthalmology and Otolaryngology. Dr. Robb was elected at the September, 1950, meeting and will take office January 1, 1952.

A. D. Ruedemann, M.D., Detroit, was re-elected Secretary for Instruction in Ophthalmology, at the October, 1951, Annual Session of the AAOO.

An Honor Key Award was presented to Cecil W. Lepard, M.D., Detroit.

Life Fellows named were Neil I. Bentley, M.D., and Raymond S. Goux, M.D. Senior Fellows were Audrey O. Brown, M.D., Thomas P. Clifford, M.D., T. F. Keating, M.D., E. E. Poos, M.D., William S. Summers, M.D., and William P. Woodworth, M.D.

* * *

April 1, 1952, is the deadline date for submission of the best original contribution on any phase of chest disease, the annual essay award offered by the American College of Chest Physicians. The grand prize includes an award of $250. For details, write the College at 112 E. Chestnut Street, Chicago 11, Illinois.

* * *

More than 10,000 persons annually pay their own expenses to and from Detroit for the privilege of walking 10 miles through the laboratories of Parke, Davis & Company, Detroit, according to H. J. Loynd, President of Michigan's 85-year-old pharmaceutical manufacturing company.

* * *

"Air-Call."—A New York City telephone answering service has introduced a person-to-person radio communication system, known as "Air-Call" that enables physician subscribers anywhere within a 25-mile radius of the center of the city to be paged any place they may be except in an underground area.

The subscriber carries a radio receiver weighing 165 grams and 4 inches long in a plastic case. By holding the device to his ear and pressing a button he can hear his code number if he is being paged. He then telephones "Air-Call" headquarters and receives his message. The code numbers will be broadcast every minute for one hour unless answered in the meantime. Unanswered phone calls to the subscriber's office are automatically relayed to the "Air-Call" message center.

Engineers, repairmen, special messengers, salesmen and attorneys also subscribe for and use this service. It also has been adopted by some hospitals and ambulance services. Its life-saving record already is an imposing one, although it has been in operation less than two years.

Offered at Public Sale!

One broken-down Brannan Plan
One socialized medicine scheme.
One million bottles of red ink.
One million pounds Polish ham.
One afternoon mail delivery, badly used.
One hundred million pounds of strong butter, unfit for hogs.
One million pumpkins, good for hiding important papers.
Unlimited quantity, State Department sleeping pills, no prescription needed.
Terms: New Deal 57-cent dollars.
A deep freeze free to first 100 customers. Hurry! Hurry! Hurry!
Your dollar will be worth much less.

—*The Bulletin,* Saginaw County Medical Society, October, 1951.

* * *

Michigan Authors

Meyer O. Cantor, M.D., Detroit, is the author of an original article entitled "Mercury Lost in the Gastrointestinal Tract" which appeared in *JAMA* of June 9, 1951.

Sidney Friedlaender, M.D., and Alex S. Friedlaender, M.D., Detroit, are authors of an original article "Oral Cortisone Therapy in Allergic Diseases" which appeared in *The Journal of Allergy,* July, 1951.

Robert C. Bassett, M.D., Ann Arbor, and **H. Harvey Gass, M.D.,** Detroit, are authors of an original article entitled "Ligation of Internal Carotid Artery" which appeared in *JAMA* of October 27, 1951.

Vernon H. Plager, M.D., Harry M. Nelson, M.D., and Donald C. Beaver, M.D., Detroit, are authors of clinical notes on "Endometriosis of Cervix Uteri with Large Endometrial Cyst" which appeared in *JAMA* of October 27, 1951.

Donald E. Van Hoek, M.D., and Merle M. Musselman, M.D., Eloise, are authors of clinical notes on "Diaphragmatic Hernia and Anemia after Transabdominal Vagotomy" which appeared in *JAMA* of October 27, 1951.

G. L. Waldbott, M.D., of Detroit, published an article, "Evaluation of the Pattern in Industrial Dermatitis of the Hands," in *Industrial Medicine and Surgery,* October, 1951.

Harold F. Falls, M.D., and James V. Neel, M.D., Ph.D., of Ann Arbor, published an article, "Genetics of Retinoblastoma," in the American Medical Association *Archives of Ophthalmology,* October, 1951.

Walter Z. Rundles, Jr., M.D., and **Harold F. Falls, M.D.,** of Ann Arbor published an article, "Congenital Arteriovenous (Racemose) Aneurysm of the Retina: Report of Three Cases," in the American Medical Association *Archives of Ophthalmology,* October, 1951.

V. Everett Kinsey, Ph.D., of Detroit, published an article, "Annual Reviews: Physiologic Chemistry of the Eye: A Review of Papers Published During 1950," in the American Medical Association *Archives of Ophthalmology,* October, 1951.

Schayel R. Scheinberg, M.D., and **Harry C. Saltzstein, M.D.,** of Detroit, published an article, "Effect of Cortisone and Corticotrophin (ACTH) on Intra-Abdominal Adhesions," in American Medical Association *Archives of Surgery,* October, 1951.

D. Emerick Szilagyi, M.D., Gilbert D. Jay III, M.D., and **Edward D. Munnel, M.D.,** of Detroit, published an article. "Femoral Arteriovenous Anastomosis in the Treatment of Occlusive Arterial Disease," in American Medical Association *Archives of Surgery,* October, 1951.

Elisha S. Gurdjian, M.D., John E. Webster, M.D., and **Francis Martin, M.D.,** of Detroit, published an article, "Gasometric Studies in Carotid-Internal Jugular Anastomosis in the Neck: Preliminary Report on Human Experiences," in American Medical Association *Archives of Surgery,* October, 1951.

John M. Hammer, M.D., H. Sidney Heersma, M.D., John R. MacGregor, M.D., and **Robert S. Dew, M.D.,** of Kalamazoo, and **Eugene A. Osius, M.D.,** of Detroit, published an article, "Complications and Effects Observed in Thirty-three Patients with Cervical Arteriovenous Fistulas," in the American Medical Association *Archives of Surgery,* October, 1951.

Sigmund Zawacki, M.D., and **E. T. Thiene, M.D.,** of Ann Arbor, published an article, "Study of the Types of Recurrence following Inguinal Herniorrhapy," in the American Medical Association *Archives of Surgery,* October, 1951.

Rudolf J. Noer, M.D., Herbert J. Robb, M.D., and **Lyle F. Jacobson, M.D.,** of Detroit, published an article "Circulatory Disturbances Produced by Acute Intestinal Distention in the Living Animal," in the American Merical Association *Archives of Surgery,* October, 1951.

Manousos Angel Petrohalos, M.D., and **John Woodworth Henderson, M.D.,** of Ann Arbor, published an article, "The Ocular Findings of Intracranial Tumor," in the *American Journal of Ophthalmology,* October, 1951.

William S. Reveno, M.D., and **Herbert Rosenbaum, M.D.,** of Detroit, "Treatment of Acute Thyroiditis with Antithyroid Drugs," in the *New England Journal of Medicine,* Sept. 6, 1951.

Paul Sugar, M.D., is the author of a new book, "The Glaucomas" published by C. V. Mosby Company.

* * *

State **Health Commissioner A. E. Heustis, M.D.,** Lansing, was elected a Trustee of Michigan Hospital Service for a three-year term, at the Michigan Blue Cross meeting of October 26.

Congratulations, Dr. Heustis!

J. W. Towey, M.D., Powers, was reappointed by the Governor to the Michigan Tuberculosis Sanatorium Commission on October 15, 1951.

* * *

L. G. Christian, M.D., Lansing, was reappointed by the Governor to the Michigan Social Welfare Commission on September 20, 1951.

* * *

The Institute of Industrial Health of the University of Cincinnati is accepting applications for a limited number of fellowships offered to qualified candidates who wish to pursue a graduate course of instruction in preparation for the practice of Industrial Medicine. The stipends for the fellowship, during the first two years, run from $2,100 to $3,000; in the third year the candidate will be compensated for his service by the industry in which he is completing his training. For additional information, write the Institute of Industrial Health, College of Medicine, Eden and Bethesda, Cincinnati 19, Ohio.

* * *

The International Congress of Ophthalmology will hold its seventeenth meeting in New York City in October, 1954. For particulars, write William L. Benedict, M.D., Secretary-General, Mayo Clinic, Rochester, Minn.

* * *

Martin H. Hoffmann, M.D., Detroit, has been appointed by State Senator Elmer R. Porter as a member of the State Committee to Study the Mental Health Program in Michigan. Chairman Porter selected Dr. Hoffmann from a list of nominees requested of the MSMS.

* * *

E. Dwight Barnett, M.D., Detroit, who has been Superintendent of Harper Hospital for a number of years, left Michigan on January 1, to assume the position of Professor of Administrative Medicine and Director of the Institute of Administrative Medicine, College of Physicians and Surgeons, Columbia University, New York.

* * *

Herbert Acuff, M.D., Knoxville, Tennessee, who was MSMS Biddle Orator for 1949, died suddenly at his home on October 31. Dr. Acuff was President of the International College of Surgeons at the time of his death.

* * *

The International College of Surgeons, United States Chapter, will hold a regional scientific meeting at the Statler Hotel, Detroit, on Thursday and Friday, April 24 and 25, 1952. This regional meeting will be comprised of Fellows, members and other Doctors of Medicine from Michigan, Illinois, Wisconsin, Indiana, Kentucky, Ohio, and the Province of Ontario.

Warren W. Babcock, M.D., Detroit, is Chairman of Arrangements for the April 24-25 meeting, to which all members of the Michigan State Medical Society who are interested in modern surgical procedures are cordially invited to attend. Preliminary program may be obtained by writing Dr. Babcock at 868 Fisher Bldg., Detroit 2, Michigan.

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Oliver Field, Director of the Bureau of Investigation of the American Medical Association, addressed the Lansing Rotary Club on October 19; the East Lansing Kiwanis Club on October 22, and the Lansing Lions Club on October 23. His subject was "Mechanical Quackery."

* * *

Inflation—forced out of bounds by hopelessly unsound fiscal policies of deficit spending and dollar devaluation—has shrunk the Social Security dollar, along with every other dollar, so drastically that the recipient (of old-age benefits) dismally faces becoming a public charge.

Before the New Deal, many people had old age security.

Now nobody has it!—California Feature Service, July 16, 1951.

* * *

Some 16,000 persons drew $6,309,000 monthly pension checks in ninety countries outside the United States last year.

That makes big shots of some pensioners in their old country!

The checks are paid in dollars and they are not subject to U. S. income taxes.

* * *

Return of the Family Doctor.—Today the Michigan family doctor keeps informed on the swift advances within his science and yet spends a minimum of time away from his patients. This is done in "hometown" postgraduate courses offered through the combined efforts of the Michigan State Medical Society, the University of Michigan Department of Postgraduate Medicine, Wayne University College of Medicine and a special organization founded by the State Society—the Michigan Foundation for Medical and Health Education.—From *Inside Michigan* (October, 1951, Number)

* * *

The Upper Peninsula Medical Society will hold its 1952 meeting in Iron Mountain on Friday and Saturday, June 27-28, 1952. D. R. Smith, M.D., Iron Mountain, is President, and E. Theodore Palm, M.D., Crystal Falls, is Secretary of the Dickinson-Iron County Medical Society. All MSMS members are cordially invited to attend this excellent scientific session. For program, write Secretary Palm, Crystal Falls.

* * *

Cornerstone for the new $3,000,000 Kresge Medical Research Building of the University of Michigan was laid in Ann Arbor on November 5. More than 200 University officials and members of the Medical School attended the formal ceremonies.

* * *

The American Society for the Study of Sterility announces the opening of the 1952 contest for the most outstanding contribution to the subject of infertility and sterility. The winner will receive a cash award of one thousand dollars, and the essay will appear on the program of the 1952 meeting of the Society. Essays submitted in this competition must be received not later than March 1, 1952. For full particulars, address The

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* * *

Eugene A. Osius, M.D., Detroit, Wm. J. Burns, Lansing, and H. W. Brenneman, Lansing, were elected Honorary Members of the Michigan State Medical Assistants Society at its September meeting in Grand Rapids.

* * *

The American Academy of Obstetrics and Gynecology was incorporated on August 4, 1951, as a non-profit corporation under the laws of the State of Illinois. It replaces the National Federation of Obstetric-Gynecologic Societies. Its first meeting will be held on the occasion of the Fifth American Congress on Obstetrics and Gynecology in Cincinnati March 31-April 4, 1952. For full information or for Fellowship application, write Ralph A. Reis, M.D., Secretary, 116 S. Michigan Ave., Chicago 3.

* * *

The Jackson County Medical Society's Clinic Day will be held April 3, 1952, at the Hayes Hotel, Jackson, Michigan. All members of the Michigan State Medical Society are cordially invited to attend.

* * *

Michigan Medical Class.—The University of Michigan, with a freshman medical class of 204, has the largest such class enrolled in any medical school in the United States. The university increased its entering class by thirty-nine over last year.

* * *

Michigan has a total of 6,937 physicians and a population of 6,371,766 persons; this results in a ratio of 1 physician for 919 persons. Apparently Michigan is less well supplied with physicians than the nation as a whole. The statistics on number of physicians in the United States and in Michigan include those who are retired and not now practicing. Included also are those doctors who are engaged in public health work, hospital services and government medical service. Physicians are increasing in number less rapidly than the total population. The population of the country increased faster than did the number of medical doctors from 1910 to 1950. At present there are more persons per physician than in 1920 or 1910.—From "Distribution of Doctors of Medicine and Osteopaths in Michigan Communities," Special Bulletin 370, June, 1951, Michigan State College Social Research Service.

* * *

C. D. Selby, M.D., of the School of Public Health, University of Michigan, Ann Arbor, addressed the Rhode Island Cancer Conference, Providence, Rhode Island, on October 17. His subject was "Physical Examination in Industry as a Cancer Case-Finding Procedure."

* * *

The second annual Dr. Eldwin R. Witwer Memorial Lecture, sponsored by the Medical Staff of Bon Secours Hospital, Detroit, was presented on October 30 by Harvey M. Merker, D.Sc., who spoke on "The Romance of Medicine." Dr. Merker presented the human interest story behind some of the recent important medical advances.

The late E. R. Witwer, M.D., was a long-time member of the MSMS Council and radiologist at Harper Hospital, Detroit.

* * *

Cyrus C. Sturgis, M.D., Ann Arbor, was inducted as President of the Interstate Postgraduate Medical Association of North America at its St. Louis meeting of October 22-25, 1951.

Congratulations, Dr. Sturgis!

* * *

"A resolution presented by the Washtenaw County Medical Society to the effect that all members of the Michigan State Medical Society be urged to contribute $100 per year for ten years to pay back some of our debt to the State of Michigan for medical education, was approved. This money will be placed in the American Medical Education Foundation Fund, for use to make up deficit in operation of medical schools."—From *The Bulletin* of the Washtenaw County Medical Society, October, 1951, in "Report of MSMS House of Delegates, 1951."

* * *

It would be good Public Relations to acquaint the people of the community with the fact that we do have

a shortage of doctors; to endeavor to educate them as to what a medical emergency consists of, and to the fact that many types of illness are not endangered by being brought outdoors and to the physician's office. Along with this "education of the public" program, I think a plan to handle true emergency calls in the home must be formulated by the members of this Society."

—T. J. KANE, M.D., President, *Muskegon County Medical Society Bulletin,* October, 1951.

* * *

The Muskegon County Medical Society takes care of the student examinations for high school athletes according to a joint plan worked out with the high school principals.

This is a program that could be emulated in all parts of the state by other county medical societies to the advantage of the athletes and the medical profession.

* * *

The Ingham County Medical Society Bulletin (October, 1951) prints its "Intern-Resident Lecture Schedule" at Sparrow Hospital, Lansing, for the year 1951. The Society uses thirty busy Lansing practitioners (several two, three and four times) to present this schedule.

* * *

The Wayne County Medical Society is contributing $200 for the proposed Detroit Civic Auditorium.

* * *

Michigan Medical Service is now giving health protection to more than 2,300,000 people. Of this number, 961,502 persons are enrolled under the combined medical-surgical plan. This represents 41.8 per cent of the total enrollment of persons who have complete protection with this combined plan. Over 10,000 employers have made Blue Shield available to their employes. Out of a potential population of 6,371,766, there are over 36 per cent of that number who have chosen Blue Shield as their form of medical care. In 1950, there were 600,969 new subscribers enrolled.

—From "Rant and Rave" column of *Detroit Medical News,* October 22, 1951.

* * *

The Wayne County Medical Society's Committee on Civil Defense and Disaster sponsored two panel discussions concerning the medical and surgical aspects of atomic warfare as they apply to civil defense. These meetings were held in the Auditorium of Grace Hospital on October 24 and November 7 and were designed primarily for zone leaders, station leaders and industrial casualty care station leaders.

* * *

E. P. Vary, M.D., Flint, is chairman of the Medical Staff of the new McLaren General Hospital, Flint. Nell M. Ward, M.D., of Flint, is secretary.

Chairman of the Board of Trustees is Mrs. F. B. Miner of Flint, wife of the late Fred B. Miner, M.D., long-time active in Genesee County and Michigan State Medical Society affairs.

* * *

"When doctors finally were able to convince other groups that they were not only fighting for self-interest,

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but that they were fighting for the health and welfare of the American people, their support mounted in spectacular fashion and new allies joined Medicine's way by the thousands.—Clem Whittaker of Whittaker and Baxter, Chicago.

* * *

Frank H. Lahey, M.D., Boston, Mass., was guest speaker at the 27th Annual Meeting and Dinner of the Alexander Blain Hospital held in Detroit on November 14.

* * *

Morton Hack, of the Hack Shoe Company, was elected first Vice President of the Michigan Shoe Retailers Association at its annual convention on November 5. He is currently President of the Detroit Shoe Retailers Association.

* * *

"Bay City, Michigan, is justly proud of its unusually well-equipped Fire Department" reads a feature story in the magazine *Blazes* (April-May-June, 1951 issue). This is the official publication of the American-La France-Foamite Corporation of Elmira, New York.

The story mentions the original policy of Bay City's mayor, Elford Cederberg, who appointed a Citizens Advisory Committee for the Fire Department. "For chairman he chose L. Fernald Foster, M.D., a member of the Bay City Fire Fans Club." The story is illustrated with a photograph of Chairman Foster and eight new pieces of equipment recently purchased by Bay City for its Fire Department.

* * *

The III Pan-American Congress of Oto-Rhino-Laryngology will be held in Havana, Cuba, January 20-24, 1952. There will be three main topics of study, (1) Evaluation of Surgery and Irradiation in the Treatment of Laryngeal Cancer. (2) Evaluation of Antibiotics, desensitization and Surgery in the Treatment of Sinusitis. (3) Non-Malignant Stenosis of the Esophagus. Instruction courses will be given by a group of Thirteen Professors. For hotel reservations address the Secretary, Dr. Pedro Hernandez Gonzalo, Gen. Sec. 8 No. 358 Vedado, Havana, Cuba.

* * *

Members of the Michigan State Medical Society now attending postgraduate courses at the Cook County Graduate School of Medicine are: Charles H. Flint, M.D., Hart, and John Ralyea, M.D., Paw Paw.

U. OF M. PRESIDENT INAUGURATED



Harlan H. Hatcher was inaugurated as the eighth president of the University of Michigan on Tuesday afternoon, November 27.

Some 251 universities and colleges and 122 learned and professional societies were represented at the inauguration. A luncheon for the official delegates was held in the Michigan Union Ballroom.

The delegates, in academic costume, assembled in the Natural Science Building and marched to Hill Auditorium where the inaugural ceremony was held.

J. Joseph Herbert, regent of the University from Manistique, presided at the inauguration. Following the invocation and the "Star-Spangled Banner," Howard L. Bevis, president of The Ohio State University, gave an address on "The Unexplored Continent."

The installation of President Hatcher was conducted by Roscoe Bonisteel, regent from Ann Arbor, and the president replied. The "Yellow and Blue" concluded the ceremony. A public reception was held in the Michigan League which closed the inaugural ceremonies.

* * *

The American Board of Obstetrics and Gynecology announces the election of John L. Parks, M.D., of Washington, D. C., as a member and Director of the Board. Dr. Parks succeeds Joseph L. Baer, M.D., who has been Vice President of the Board for over twenty years and who has resigned.

* * *

The American Hospital Association selected three Michigan men to key positions in the national hospital field, at the annual convention in St. Louis, in September. E. Dwight Barnett, M.D., of Detroit, was elected a trustee of the American Hospital Association. Dr. Barnett is Director of Harper Hospital and President of the Michigan Hospital Service, the Blue Cross of Michigan. He is also a director of Michigan Medical Service. Kenneth Babcock, M.D., of Detroit, Director of Grace Hospital, member of the Board of Trustees of Michigan Hospital Service and the Board of Directors of Michigan Medical Service, was elected Chairman of the Council on Prepayment Plans and Hospital Reimbursment. Ron-

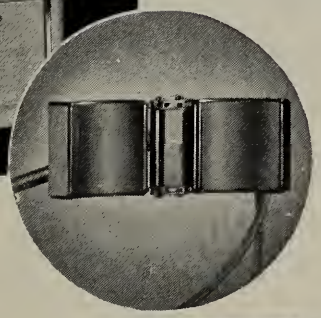


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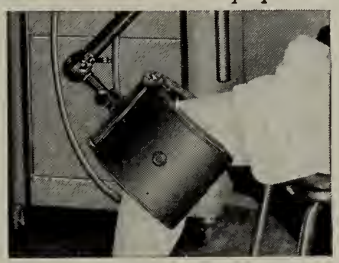
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ald Yaw, Grand Rapids, Director of Blodgett Memorial Hospital and member of the Board of Directors of Michigan Medical Service, was elected Chairman of the Council on Administrative Practice.

* * *

The American Hospital Association reports that nearly 16,000,000 patients were admitted to acute general hospitals in 1950 as against 7,775,000 in 1936.

Total admissions in all types of hospitals in 1950 exceeded 17,000,000.

The average length of stay for all persons hospitalized in the United States has been cut from fifteen days in 1936 to eight days last year.

* * *

Michigan Hospital Service, since the first of the year, has paid for the hospitalization of its members in fourteen different countries, including Syria, Java, India and Peru.

One Blue Cross member was hospitalized in the ship's infirmary while a passenger on the *S. S. Empress of Scotland.* He paid his bill for the services received, mailed it to Blue Cross, and was promptly reimbursed.

The world-wide coverage provided by Blue Cross holds on sea as well as on land.

* * *

The Michigan Society of Medical Technologists met at the Wayne County General Hospital on November 11 and 12. Mrs. Betty Stearns, of Lansing, presided as the newly elected president. 165 members and guests attended. Those contributing to the program were: Dr. E. S. Beneke, Mr. Makio Murayama, Dr. G. S. Fisher, Dr. A. A. Cintron Rivera, Dr. D. E. Halsey, Dr. W. J. Nungester and Miss Angela Serafini.

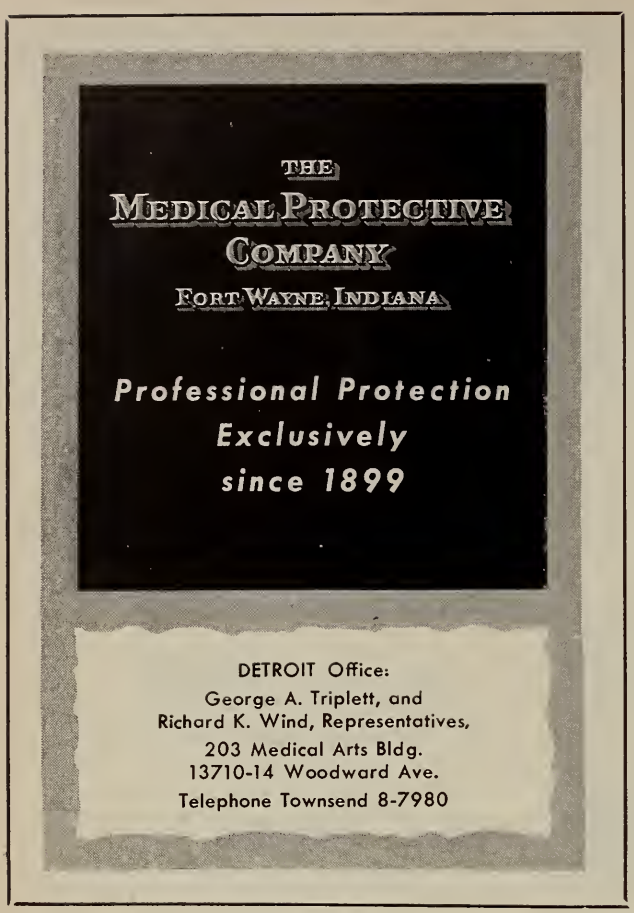
* * *

Harry Becker, director of the Social Security Department of United Auto Workers-CIO since February, 1948, has been appointed associate director of the Commission on Financing of Hospital Care, Chicago. He assumed his new duties on November 15.

Medical research is one phase of the program financed by tuberculosis Christmas Seals. Expansion of the research program has been possible through the years as Seal Sale returns have increased, until now medical research grants by the National Tuberculosis Association total nearly $200,000 a year.

This year thirty-five investigations are being aided by grants from Christmas Seal funds. The studies can be grouped under six general categories: the tubercle bacillus, anatomy and physiology of the lung, pathology and immunology of tuberculosis, experimental chemotherapy of tuberculosis, clinical treatment of tuberculosis in children and adults, and the epidemiology of tuberculosis and related disease.

—MICHIGAN TUBERCULOSIS ASSOCIATION



While he was with UAW-CIO, Mr. Becker worked with prepayment plans, especially Blue Cross, which covers members of that labor group. Mr. Becker served as labor representative on the boards of trustees of Michigan Hospital Service (Blue Cross) and Michigan Medical Service (Blue Shield).

Before his present position, Mr. Becker was director of the Administrative Methods Unit, U. S. Children's Bureau, Federal Security Agency. He was also medical care administrative consultant, with particular responsibility for grants-in-aid medical care and public health programs of the Children's Bureau. He was largely responsible for the general administrative aspects of the Emergency Maternity and Infant Care Program during World War II, the largest medical care program for civilians ever undertaken by the United States government.

In Washington, D. C., he was associated with, and for several years was board president of, Group Health Association, a prepaid medical care co-operative.

His other former positions include technical adviser in medical care administration, Public Health Service, Bethesda, M.D.; consultant in administration, Bureau of Child Hygiene, New York City Department of Health; assistant director and later director of Child Health Welfare and Services to Crippled Children, Nebraska, and director of UAW-CIO Health Institute and Diagnostic Clinic, with emphasis on industrial medicine and mental hygiene services. He has written several articles on economics of hospital care.

ANNUAL COUNTY SECRETARIES—PUBLIC RELATIONS CONFERENCE

Sunday, January 27, 1952
Book-Cadillac Hotel, Detroit, Michigan

Program

Morning—10:00 a.m. to 12:00 (Crystal Ballroom)

Chairman: Arch Walls, M.D., Detroit, Chairman of MSMS Public Relations Committee

FORMULA FOR FREEDOM

1. "The Formula Works"—a documentary radio broadcast
   Commentator: Joseph R. Hainline, Detroit, WJR News Reporter.
2. "Why Formula is Valuable to Medicine"
   William Bromme, M.D., Detroit, Chairman MSMS Council
3. "How Formula is Applied"—a panel
   Press: C. L. Weston, M.D., Owosso; *Radio:* C. A. Payne, M.D., Grand Rapids; *Cinema:* R. F. Salot, M.D., Mt. Clemens; *Publications:* K. H. Johnson, M.D., Lansing; *Speakers:* G. E. Millard, M.D., Detroit; *Education:* H. J. Meier, M.D., Coldwater. *Quiz Master:* J. E. Livesay, M.D., Flint.

Noon-Day Dinner—12:15 p.m. (Italian Garden)

Chairman: Otto O. Beck, M.D., Birmingham, MSMS President

Speaker: "Pretzels Sell Beer," F. A. Kaiser, Detroit, Vice President, Detroit Michigan Stove Company

Afternoon—2:00 to 4:00 p.m. (Crystal Ballroom)

Chairman: E. H. Fenton, M.D., Detroit, Chairman of County Secretaries

1. "The Beaumont Memorial"
   Otto O. Beck, M.D., Birmingham, MSMS President
2. "What You Should Know About the Medical Practice Act and the Basic Science Act"
   J. Joseph Herbert, LL.B., Manistique, MSMS Legal Counsel
3. "MSMS Techniques—and Why"
   L. Fernald Foster, M.D., Bay City, MSMS Secretary
   Question-and-Answer Period.

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MOUNT CARMEL MERCY HOSPITAL CLINIC DAY

Wednesday, January 30, 1952

Program (At Hospital, 6071 West Outer Drive, Detroit)

Morning Session—9:00 A.M. to 12:00 M.

Alexander Brunschwig, M.D., Professor of Surgery, Cornell University.
Subject: PRESENT STATUS OF EXENTERATION OPERATIONS FOR ADVANCED PELVIC CANCER.

Howard F. Root, M.D., Associate Professor of Medicine, Harvard University.
Subject: CONTROL OF DIABETES BY INSULIN AND DIET IN THE PREVENTION OF DEGENERATIVE COMPLICATIONS.

George H. Gardner, M.D., Professor of Obstetrics and Gynecology, Northwestern University.
Subject: A GYNECOLOGIST EVALUATES LOW BACKACHE.

Wiley D. Forbus, M.D., Professor of Pathology, Duke University.
Subject: (Topic to be given).

Luncheon—12:30 P.M.

Afternoon Session—2:00 P. M. to 4:15 P.M.

Cushman D. Haagensen, M.D., Associate Professor of Clinical Surgery, Columbia University.
Subject: THERAPY OF BREAST CARCINOMA.

David T. Smith, M.D., Professor of Medicine and Bacteriology, Duke University.
Subject: CHRONIC BACTERIAL AND FUSOSPIROCHETAL INFECTIONS OF THE LUNG.

Alton Ochsner, M.D., Professor of Suryery, Tulane University.
Subject: THE EARLY DIAGNOSIS AND TREATMENT OF GASTRIC CARCINOMA.

Banquet—7:30 P.M., Statler Hotel

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THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

REVIEW OF PHYSICAL CHEMISTRY. By Harold A. Harper, Ph.D., Professor of Biology (Biochemistry), University of San Francisco Lecturer in Surgery, University of California School of Medicine, San Francisco Biochemist Consultant to Metabolic Research Facility, U. S. Naval Hospital, Oakland Director, Bio-Chemistry Laboratory, St. Mary's Hospital, San Francisco. Third edition. Palo Alto, Calif.: University Medical Publishers, 1951. Price $3.50.

This loose-leaf book lives up to its title. It is up to the minute and concise, and while the author states that it is intended as a supplement for a larger text, it does very well independently. The chapters on the adrenal cortex and on water balance are excellent. While it is recommended to all physicians, it would be of particular value to the internist or surgeon preparing for a specialty-board examination. A.A.H.

DIABETES CONTROL. By Edward L. Bortz, M.D., Chief of Medical Service B, The Lankenau Hospital; Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Former President of the American Medical Association. Illustrated. Philadelphia: Lea & Febiger, 1951. Price $3.50.

Dr. Bortz has written this book especially for the patient. The profession is now offering to the patient all the information possible in the fight to control diabetes, and the outlook for the patient is the brightest ever. Several books are in the field giving specific instructions to the patient, and outlining reasons and methods to attain health. Twenty-four chapters take up detection, control, what is diabetes?, causes; symptoms, basis of treatment, the diabetic child, pregnancy, and many others such as surgery, life insurance, long life. The literary style is pleasant. The book should be in the hands of the family of every diabetic.

MASTER YOUR MIND. By Samuel Kahn, M.D., Ph.D. New York: Rockport Press, Inc., 1951.

The author, in his introduction, states "This book connotes happiness. It is written for young and old. It provides avenues of approach that are intended to remove barriers that obtrude on the journey to a joyful state of mind." The preface is ten pages and develops the tenet, "As one studies, so will he think and act." There are sixteen chapters on: How to study and think; difficulties in studying; advice on how to study; et cetera. Other chapters include: How to use a library; important reference materials in libraries; how to take good notes; attention; remembering and methods used in remembering. A chapter on failure and success is followed by one on important questions for your study. There is an extensive

bibliography. This is a very interesting and challenging book.

ALLERGY IN RELATION TO PEDIATRICS. By Bret Ratner, M.D., Professor of Clinical Pediatrics (Allergy) and Associate Professor of Immunology, New York Medical College; Attending Pediatrician, Flower and Fifth Ave. Hospitals; Director of Pediatrics, Sea View Hospital. Panel Discussion: T. N. Harris, M.D.; Ben F. Feingold, M.D.; M. Murray Peshkin, M.D.; Lewis Webb Hill, M.D.; Wm. P. Buffum, M.D.; Edward Scott O'Keefe, M.D.; W. Ambrose McGee, M.D.; Susan C. Dees, M.D.; A. J. Horesh, M.D.; Dorothy W. Baruch, Ph.D.; Hyman Miller, M.D.; Richard H. Todd, M.D.; Wm. C. Deamer, M.D.; James C. Overall, M.D.; Albert V. Stoesser, M.D., Ph.D., and Jerome Glaser, M.D. An official publication of The American College of Allergists. Saint Paul: Bruce Publishing Co., 1951. Price $3.75.

This book edited by Doctor Ratner, contains articles by some sixteen Pediatric Allergists in addition to the opening chapter by the editor on "Genesis of Allergy."

The compilation covers the subject reasonably adequately, probably authoritatively, and should prove of value to the practitioner. Diagnostic methods are well discussed. With some exceptions treatment is not as well handled as the more theoretical phases of the studies.

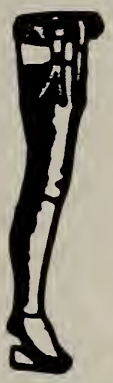
One is inclined to find fault with the realism, if not the truth, of the following statement by Doctor Ratner in the introduction: "Specialized training does give the Pediatric Allergist an insight that enables him to probe more deeply into the dual aspects of pediatrics and allergy which should enable him to treat more adequately the highly complicated cases which resist usual diagnostic and therapeutic measures." The relative scarcity of practitioners of that hybrid specialty, Pediatric Allergy, reduces the above statement to the realm of impractical observation. Within the lifetime of most of us the limitations imposed by geography will make it necessary that even complicated cases be treated by a Pediatrician, or an Allergist, or a General Practitioner. Perhaps with the aid of this book he may be able to avoid making too much of a mess of the job.

H.F.B.

SURGICAL TREATMENT OF THE MOTOR-SKELETAL SYSTEM. Supervising Editor-Frederic W. Bancroft, A.B., M.D., F.A.C.S. Professor of Clinical Surgery, New York Medical College; Director of Surgery Emeritus, Beth David Hospital, New York, N. Y.; Director of Surgery, Hasbrouck Heights Hospital, Hasbrouck Heights, N. J.; Senior Consulting Surgeon, Bronx Veterans Hospital; Consulting Surgeon, New York Infirmary for Women and Children, Lincoln and Harlem Hospitals, New York, N. Y., North County Community Hospital, Glen Cove, N. Y., Paterson General Hospital, Paterson, N. J., and Stamford Hospital, Stamford, Conn. Associate Editor, Henry C. Marble, A.B., M.D., F.A.C.S. Consultant, formerly Chief of Fracture Service, Massachusetts General Hospital; Consulting Surgeon, Veterans Administration Cushing and Bedford Hospitals; Surgeon, Chelsea Memorial Hospital, Chelsea; Consulting Surgeon, Faulkner Hospital; Instructor in Surgery, Harvard Medical School, courses for graduates. Part One—Deformities, Paralytic Disorders, Muscles, Tendons, Bursae, New Growths, Diseases of Bones and Joints, Amputations.

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$10,000.00 accidental death *$50.00 weekly indemnity, accident and sickness*	**$16.00** *Quarterly*
$15,000.00 accidental death *$75.00 weekly indemnity, accident and sickness*	**$24.00** *Quarterly*
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With 519 Illustrations and one color plate. Second Edition. Philadelphia: Two Parts, J. B. Lippincott Co., 1951. Price $24.00.

This new second edition published in two volumes is a thorough revision. All procedures, obsolescent or historical, have been eliminated. One entirely new unit on The Physiology of Bone Repair has been added. New material will be found in many of the chapters; for example, the chapter on Congenital Deformities of Lower Extremity and Surgical Treatment of Scoliosis.

All forty-six contributors are experts in their respective fields and with the assistance of the editors have made their material concise and readable. The material has been divided into two parts according to the origin of the lesion, with those due to injury in Volume I and those due to other causes in Volume II. The general surgeon, the orthopedic surgeon, and all physicians who treat trauma will find this work an excellent one.

—J. W. H.

HANDBOOK OF MEDICAL MANAGEMENT. By Milton Chatton, A.B., M.D., Instructor in Medicine, University of California Medical School, San Francisco; Sheldon Margen, A.B., M.D., Clinical Instructor in Medicine, and Henry D. Brainerd, A.B., M.D., Assistant Clinical Professor of Medicine and Pediatrics, University of California School of Medicine, Assistant Clinical Professor of Pediatrics, Stanford University School of Medicine; Physician in charge Isolation Division, San Francisco Hospital. Second Edition. Palo Alto, California: University Medical Publishers, 1951. Price $3.00.

This is truly a pocket size book, 4 by 7 inches, and an inch thick. There are four general consideration chapters, the usual considerations of diagnosis, management, fluids, electrolytic therapy, parenteral feeding, diet and nutrition, then eighteen chapters devoted to different groups of disease and conditions. The disease entities are given their code number. The book is indexed. The considerations are necessarily brief, but sufficiently clear. There are over five hundred pages.

THE PUBLIC HEALTH NURSE AND HER PATIENT. By Ruth Gilbert, R.N., Co-ordinator, Course for Mental Hygiene Consultants and Assistant Professor of Nursing Education Teachers College, Columbia University. Published for The Commonwealth Fund. Cambridge, Mass.: Harvard University Press, 1951. Price $3.75.

Eleven years have elapsed since the first edition of this book was issued. This present book is an elaborate text for the nurse, whether public health or not. It recognizes the vast importance of mental health, and much of the text is so directed. A chapter is devoted to teaching health—over ninety pages, and it involves the relationship between the nurse and the patient, working with the individual patient, and working with groups. The next chapter deals with the maternity patient. The chapter regarding the child in the family takes up growth, maturity and learning. Training situations and behavior problems are dealt with. A chapter is given to nursing the sick patient. The final chapter, justifying the title of public health nurse, is devoted to relationship with coworkers, interagency and interprofessional affairs. The book is well written, beautifully printed, and well worth the attention, we would think, of *every* nurse.

FROM A DOCTOR'S HEART. By Eugene F. Snyder, M.D. With a Foreword by Paul Dudley White, M.D. New York: Philosophical Library. Price $3.75.

We have been pleased to read this little book. It is the story of a doctor who speaks from personal experience in learning and teaching others to overcome the handicap of a "heart attack." The book is illustrated by cartoons made by the doctor, but improved by a cartoonist. The author stresses the condition of heart disease, its insidious attack, and the small amount of research. He quotes the report of Dr. Henry Simms of Columbia University to the Senate Subcommittee on Wartime Health and Education, December, 1944: "In 1940, $2.18 was spent in America on research for each cancer death, $4.00 for each death from infectious diseases (other than infantile paralysis), $525 for each infantile paralysis death, and 17c for each death due to diseases of the heart and arteries."

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